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*Complete
Garden
Guide
for
1950*



McMAHON'S

Garden Annual

McMAHON COMPANY, INC. • Corner 5th & Rapid Sts. • RAPID CITY, S. D.

Phone 921

New! THE GREATEST FLOWER
NEWS IN MORE THAN A DECADE



FIRE CHIEF PETUNIA—This beautiful deep red petunia is the first flower to win the top Gold Medal award in eleven years! Plan to be one of the first to use this important new variety. Will add a glowing new freshness to your 1950 flower garden.

New Selections for YOUR GARDEN



SWEET PEA — The **Margaret O'Brien**. Distinctly different color. Radiant salmon-coral suffused with luminous orange sheen.



MORNING GLORY—**Blue Star**. Beautiful. Dark blue star on delicate sky-blue trumpet.



ASTER—**Princess**. Deep quilled "cushion" centers. 3" to 3½" blooms. Makes fine wilt-resistant cut flowers in new colors.



POPPY, **Gariford**—Pastel mixture. Long stemmed. Very rich. A most unusual giant flowering strain.



LARKSPUR—**Regal**. Tremendously long thick spikes. Superb performer that suits critical florist standards.



DOUBLE SNAPDRAGON — **Lemonade**. Clear primrose-yellow with extra petals in the mouth of each floret.



CALENDULA — **Orange Quills**. Bright mid-orange flower. Unique form. Petals curl downward and meet underneath forming a quill.

LIMITED WARRANTY CLAUSE—Our Company warrants to the extent of the purchase price that seeds or bulbs sold are as described on the container within recognized tolerances. Seller gives no other or further Warranty, express or implied.

This book is a Complete Guide



Do you know exactly how much lettuce seed to plant for the number of feet of row you want?

... or what kind of soil you need for cucumbers? And how to get it?

... or what are the reasons behind inter-cropping, catch-cropping, and succession cropping?

... or the special fertilizer needs of dahlias?

• • •

In this "Garden Annual" you'll find the answers to hundreds of questions like these! Unlike most seed catalogs, this book devotes nearly half its space to the "How-when-where-why" of gardening.

You see, we want your garden to be a rousing success! We want you to get the most results with the least effort. We want your gardening to be fun.

So, in this book as in our store, we do everything possible to help the gardeners we serve.

Our job as seedsmen, we believe, is to provide know-how, as well as merchandise. We provide it through our Spring Garden Annuals. We keep on providing it in our store, throughout the year!

YEAR-ROUND!

We offer a complete, year-round, local garden service.

We offer only good, fresh seeds—packet or bulk.

We offer a complete supply service.

We offer cheerful, expert garden counsel.

HELLO NEIGHBOR!



Just between us home folks—

As you've already noticed, this Garden Annual comes to you from a neighbor. Unlike most seed catalogs, it's a local affair. That's very important, we think.

For one thing, it means that this book tells about farming here in South Dakota, right here in our area. It offers you seeds and farm materials suited to the soils and growing conditions right here in the Rapid City and Sturgis localities. It means also that you don't have to send a thousand miles away to get the seed you want for your farm. You can get the best right here, and they are McMahon's Registered Brands Seeds.

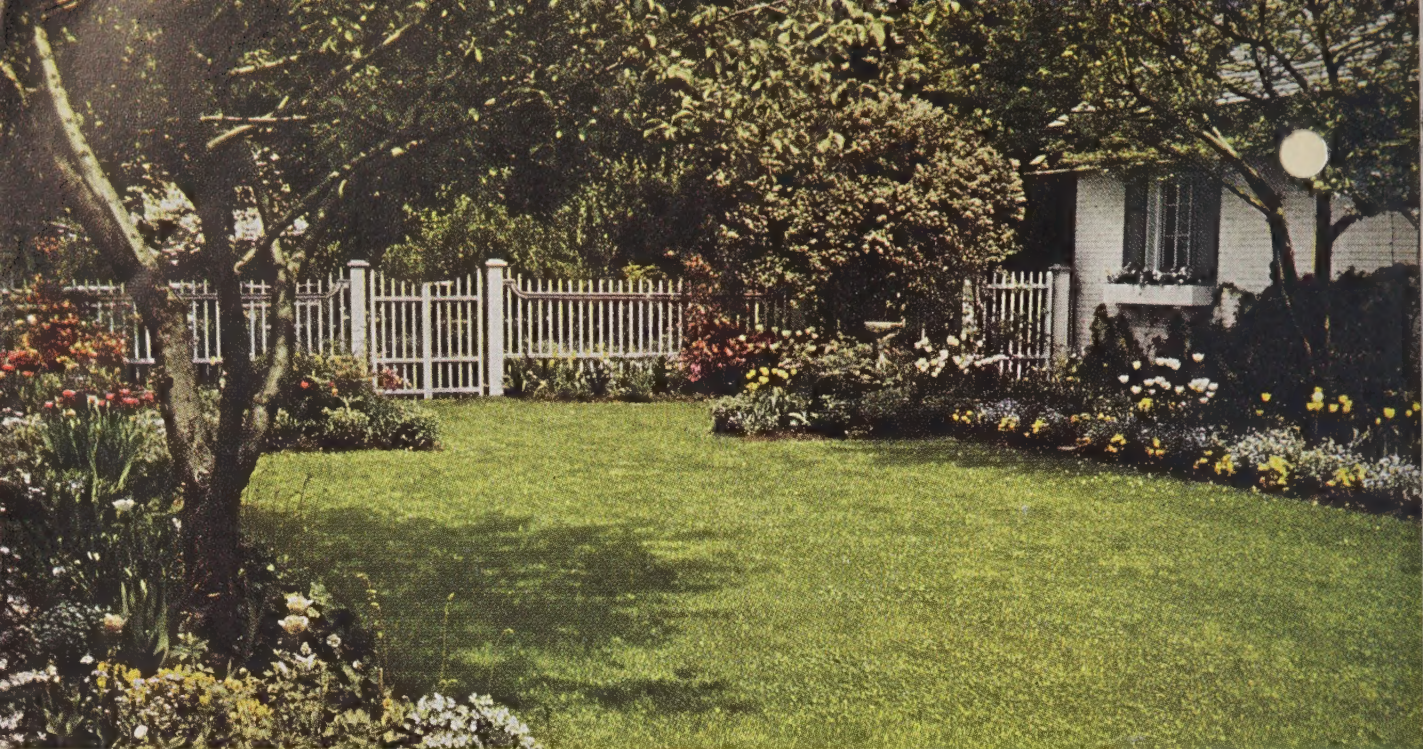
The most important element in making a crop, and usually the least expensive, is the seed. If the seed fails, then the land, the fertilizer, and the labor are all wasted. **Yes, it certainly doesn't pay to save a few pennies by buying cheap seed when you may lose the whole crop by doing so.** You can plant with confidence when you plant McMahon's double-sure Registered Brands Seeds.

McMAHON COMPANY

Incorporated

RAPID CITY
South Dakota

STURGIS
South Dakota



How to Grow and Maintain a Beautiful, Rich, Green Lawn!

STARTING A NEW LAWN

SOIL PREPARATION. Spade or plow the area to a 6 or 8 inch depth. Pulverize the soil thoroughly. A heavy clay soil can be lightened by mixing with sand and humus. A light soil can be improved by adding a top dressing of heavier soil. For best results soil should be slightly heavy. If the soil is acid, scatter crushed limestone.

Peat moss or Terralite are invaluable additions to both light and heavy soils because they help retain soil moisture without allowing the water to be dissipated down below the root lines. Too, they keep soil particles loose and friable. Spade them into the soil or apply as a top dressing at least half an inch deep. In a heavy clay soil use one inch or more. A newly planted lawn needs a rich well balanced soil, because grass roots are heavy feeders. By feeding the soil the vital elements contained in plant food, such as nitrogen, phosphorous, potash, etc., you are headed toward a successful planting. We can recommend the best plant food for your local soil condition.

Mix the lawn food with a top dressing or rake and work it well into the soil. Because fresh manure usually contains weed seeds its use is not advisable for a new lawn.

SEEDING. The generally accepted rule for the amount of seed required is five pounds per thousand square feet. Skimping on seed in quality or quantity is costly in time and labor. A well sown lawn checks the immediate introduction and development of weeds. Too much seed retards growth. Choose a calm windless day for sowing. A more uniform distribution of seed is possible with a spreader. Whether sown by hand or spreader, however, sow in two directions, one at right angles to the other. This insures against leaving bare grassless areas.

Rake the seed into the soil lightly or brush it in by dragging some light flexible object over it such as a sack. The seed should be covered by an eighth of an inch of fine soil or new top dressing.

ROLLING. May be properly employed to press the soil firmly around the new seed. Use a light water ballast roller, empty to one third full. Remember the soil becomes compacted if rolled too heavily too often or when wet and sticky. For leveling your lawn whether new or old use top dressing, never a roller.

WATER with a fine spray so the seed bed will not be disturbed. If the normal moisture is enough to keep the lawn just slightly damp try not to water it again until the seed has germinated, but do not let it get dry at any time.

SPRING LAWN CARE

Fine lawns start with very early spring care. Here are some suggestions.

1. **REMOVE** all the winter accumulations of leaves and debris by raking.

2. **APPLY PLANT FOOD** as directed by the manufacturer. If grass has started apply when grass is dry, then soak the lawn to wash the plant food off the blades and into the soil.

3. **RE-SEED** thin and bare spots using about a pound to each 200 square feet. Pulverize the soil in bare spots, then cover the seed lightly.

4. **ROLL** the lawn with a lightweight roller when soil is dry enough to prevent compacting.

Fall planting offers many advantages in lawn starting. If you plant in the spring, seed early—long before you begin work on your flower garden, for seedlings need a chance to grow sturdy before weeds germinate. Planting delayed until mid-summer can be successful if diligently followed by ample watering and weeding.

SUMMER LAWN CARE

1. **MOW** frequently enough to keep grass from exceeding a 2½ inch height. Set the mower to cut about 1¼ inches high. Very close cutting scalps the rough spots and unless done extra-frequently injures the grass by sudden exposure to the sun after it has been shaded by dense growth. Short mower clippings left on the lawn are beneficial. They are harmful however if the quantity is so great the grass is smothered and new growth retarded.

2. **WEED CONTROL** with the many excellent and selective types now available assures weed elimination with the least effort and time. Get those weeds early before they seed or spread and your summer lawn care is considerably easier. Refer to our weed killer selection in the back of our Garden Annual.

3. **WATERING** is a point that depends much on your good judgment. If the turf is dry it is far wiser to soak limited areas to a six to eight inch depth on successive evenings than to sprinkle the whole lawn with a limited supply of moisture that will attract the dry grass roots up to the surface. Water sloping areas more liberally at the top to compensate for drainage losses.

FALL LAWN CARE

FEEDING the lawn with a balanced plant food and seeding the bare and thin spots will amply reward your effort the following spring with a sparkling, healthy new growth.

Fall Is A Good Time To Make a New Lawn. During the moderate fall weather, grass seed germinates quickly and makes vigorous growth. Also, few weeds germinate in the fall, thus permitting the lawn to flourish without interference.

LAWN SEED

A better lawn for your home? We can help you!

When a seedsman operates in **only one area**, he soon knows just about all there is to know about **lawn-building** in that area.

We've been at it for quite along time, hereabouts! So we can assure you that **we know what your lawn needs**. Whatever your lawn situation may be, it's a good idea to ask us about it!

Astoria Bent

Produces numerous root stocks which spread underground and throw up new shoots, making a very thick turf. This Bent has a good color and is excellent for lawns and putting greens. Does not require as much cutting as Creeping Bent.

Seaside Bent

A true creeping Bent. The plant is dwarf, and multiplies rapidly by sending out runners in all directions. With proper watering and care, it makes a strong, enduring turf. If damaged it heals over promptly.

Chewings Fescue

A superb grass to grow in rather shaded areas and even on fairly acid soil and under other unfavorable conditions. Plants grow low, make a dense turf. Often used for putting greens and fairways.

White Dutch Clover

Although not a grass, White Clover is very desirable in lawn mixtures because of its rapid, low growth and creeping stems. Valuable as a green cover for poor ground. Succeeds best on moist ground or during wet season.

Our finest Lawn Mixture

Our **selected** lawn mixture is a combination of the finest quality seeds—which we have developed after years of experience. All the grasses in it are fine-bladed and deep-rooting. There just isn't any better combination than this for the lawns of our territory!

Kentucky Blue Grass

Produces a deep dark green lawn of close thick turf. Maintains its green color until late in fall. Roots are deep, and plants are very hardy.

Domestic Rye Grass

A quick-growing annual, valuable in lawn mixtures as a nurse crop, to keep lawn green while better, slow-growing varieties are becoming established. Succeeds well on almost any soil.

Perennial Rye Grass

A quick growing grass, most suitable for mixtures. Succeeds on almost any soil not water sogged.

Red Top

Particularly suitable for wet, low spots, as it stands wet weather or even overflowing, better than other grasses. Also does well on almost any good, rich soil. Often thrives where Blue Grass fails—and therefore makes an excellent supplement for it.

Other Grasses

Besides the lawn grasses listed here, we can also supply just about any other grasses you may need. We carry a complete line of all varieties that can be successfully grown in this part of the country. Just tell us what you want!

Our special Shade Mixture

Our **shade** lawn mixture is a scientifically developed blend of top quality shade enduring grasses and clovers. We've been getting excellent results with it for years and believe it will produce results anywhere that grass can be made to grow.

McMAHON SPECIAL LAWN GRASSES

TOP LAWN MIXTURE

A combination of the finest quality seeds—a mixture which we have developed after years of experience. All the grasses in this mixture are fine-bladed and deep-rooting. There just isn't a better combination than this for the lawns of this territory.

FAIRWAY STRAIN CRESTED WHEAT GRASS

Fairway Strain Crested Wheat Grass is the ideal grass for dry land lawns. We have selected a special fancy lot that will make a fine lawn where many other types of lawn grass will not grow successfully.

WHATEVER THE NEED!



BRIGHT SUN

Some sunny lawns require one type of seed; some need another. No single variety or mixture of varieties can take care of all situations. But whatever the need, we can supply the seed that is best suited.



DEEP SHADE

Wherever cool shade makes it difficult to obtain a good lawn, our special shade mixture is heartily recommended. We have chosen excellent quality, shade enduring grasses and clovers that will give you good results.



SPECIAL USES

We have just the right grass seed for every purpose. We can give you special deep-rooted grasses for the sloping lawn, the ideal grasses for planting on golf courses, parks, estates, cemeteries . . . or for just any other special use. Just tell us what you want.



VEGETABLE SEEDS

From among all the thousands of available varieties, we have selected those which will produce the best quality and the greatest yields in the gardens of our territory. So we offer you this compact selection as a safe, sound base for your plans.

VEGETABLES FOR FREEZING

The Symbols (fr) following the variety names indicates vegetables suitable for home freezing.

ASPARAGUS

A hardy perennial; will bear over 20-year period if properly cared for. We recommend purchase of ASPARAGUS ROOTS rather than seeds, as roots produce crop 2 years earlier. If seed is used, sow thinly in drills in early Spring. Cover to $\frac{1}{2}$ " depth. Soak seed 24 hrs. before planting. Sow in loose, rich, moist soil after weather warms up. Thin to stand 6" apart. When a year old and in early spring transplant in well enriched beds in permanent position, 24" apart, in rows 20" apart. Set in hole so that crown is 8" below surface, but only cover tips with 3" of soil. As plants grow, fill in until level. Don't cut first year after setting.

Mary Washington (fr)—Thick, tall green spears with purple tops. Highly rust resistant. Rapid growing, Tender.

BEANS

Green Podded, Dwarf or Bush

Don't plant until the weather is warm and settled.

Sow beans in bottom of furrow, 3" to 4" deep and from $2\frac{1}{2}$ to $3\frac{1}{2}$ feet between rows, but do not fill in with more than $1\frac{1}{2}$ " of soil over seeds. Press soil firmly over seeds, but do not pack hard. Thin to stand 4" to 6" apart in row. Bean seedlings are likely to be slowed up pushing through heavy soil. In such soils,

cover seeds with mixture of half sand and half soil, or sand and peat or any other loose, light material that will allow seedlings to break through easily.

Thin young plants to about 6" apart. Keep cultivated until plants blossom. (DO NOT CULTIVATE when blossoms are at prime or when plants are wet with dew. Keep vines picked to insure a larger bearing period.) Make plantings every two weeks for supplies throughout the season.

—Two scientific facts about beans will help produce better crops. First, being legumes, they should be inoculated with special legume culture listed in supply section. This enables plants to manufacture their own nitrogen from the air. Second, bud drop of the tiny flowers (even before they can be easily seen) cuts the early set of pods. By spraying with a fruit setting spray these buds are held on and the early crop increased by as much as 100 per cent.

Black Valentine Stringless (fr)—Hardy, early maturing, very productive. Pods, dark green, 6-6 $\frac{1}{2}$ in. long, brittle, smooth, stringless. Seeds black. 49 days.

Bountiful (fr)—An early, heavy-yielding variety. The leading flat podded bean for market and home use. Flat, light-green, stringless, but slightly fibrous pods of finest quality. 47 days.

Stringless Green Pod (fr)—Large, sturdy plants. Meaty round pods, brittle and strictly stringless. Medium green pods, oval, yellowish-brown seed. 54 days.

Giant Stringless Green Pod—5 $\frac{3}{4}$ " pods almost round. Meaty, stringless and brittle. Medium Green. 53 days.

Plentiful—Productive, early. Flat, medium green pods, 6 to 7-in. long, strictly stringless. Choicest quality. All-America Medal. 51 days.

Tendergreen (fr)—Large, erect plants. Abundant, round, dark-green pods, strictly stringless and fleshy. 54 days.

Wax Podded, Dwarf or Bush

Improved Golden Wax (fr)—Small, erect plants, moderately productive. Straight, thick, flat pods, creamy yellow and stringless. 51 days.

Pencil Pod Black Wax (fr)—Stocky, large, strongly productive plants. Pods, golden yellow, tender, stringless. 55 days.

Sure Crop Stringless—Handsome, rich yellow pods. Sturdy, brittle. 6-6 $\frac{1}{2}$ in. long. Strictly stringless. 53 days.

Beans, Pole

In warm ground, set poles 4' to 8' long slanting a bit to the north in rows 4' apart. (Extending north and south the poles will be 3' apart in the row.)

Anchor well as heavy beanvines blow over easily.

Plant 5 to 8 beans about 1" deep around each pole. When growth is sufficient thin to four plants.

Sometimes three poles set to form a tepee are used and several seeds planted around each tepee.

Caution: To avoid spreading plant diseases, do not cultivate or pick when plants are wet.

London Horticultural or Cranberry—Hardy, good climber. 5" pods flat-oval, dark green when young, splashed with red. Slightly curved, stringless, little fiber and very fleshy. 70 days.

Kentucky Wonder (fr)—Strong climber, hardy, long-bearing. Curved, almost round pods. Slightly stringy, but brittle and fibreless. Meaty. 65 days.

Kentucky Wonder Wax (fr)—Vigorous, good climbing plants waxy-yellow pods, flat and nearly stringless. Somewhat fibrous but meaty. 68 days.

Beans

15¢ PER PACKET

ALL OTHER VEGETABLE SEEDS 10¢ EXCEPT WHERE OTHERWISE NOTED

BEANS, Continued

Lima, Dwarf or Bush

Plant in dry, warm ground. Make rows 2' apart and drop beans 6" apart in row. Plant Lima Beans with the eye down to assist quick germination. Cover with 1" of soil. Can also be planted in hills, 3' apart one way and 2' apart the other way. Use 4 to 6 beans per hill.

Burpee's Improved Bush (fr)—Best of flat seeded bush limas. Pods contain four or five large beans of excellent quality. 75 days. Pkt. 15c.

Fordhook Bush (fr)—Straight pods with plump, large beans, excellent quality.

Henderson's Bush (fr)—Known as Baby Lima or Butter Bean. Plants small, early and bushy. 65 days. Very productive.

Lima, Pole

Follow same plan as for other pole beans but plant seed two weeks later.

King of the Garden (fr)—Flat, smooth pods with four or five white, large, flat beans. 88 days.

BEANS, SHELL

Navy—Small seed, almost round and white. Hardy, prolific. Most popular for baking. 95 days.

Red Kidney—Pods 6-7 in. long. Flat large beans, pinkish red to mahogany in color. Rich flavor. 95 days.

BEETS

Deep, rich sandy loam produces finest beets. As soon as ground can be worked sow in drills 18" apart and press soil firmly over seed. Each "seed" is a fruit with several true seeds. No matter how thinly beets are sown, they will need thinning. Make three sowings, one early, one three weeks later and one 60 days before fall. When tops are 3" to 6" tall pull them and use for cooked greens. Continue this until roots stand 6" apart.

Crosby's Egyptian (fr)—Widely grown for early beets. Flattened globe shaped roots with small tap root. Excellent quality, tender and sweet. 60 days.

Detroit Dark Red (fr)—Standard of excellence in table beets. Smooth, globular roots of deep ox-blood red—sweet and tender. 68 days.



The beans illustrated here (to give you a comparison of sizes) are: 1—Improved Golden Wax; 2—Giant Stringless; 3—Tendergreen; 4—Bountiful; 5—Kentucky Wonder; 6—Henderson's Bush Lima, and 7—Fordhook Bush Lima.

Early Wonder—Early variety. Semi-globular, tender, blood-red. 58 days.

BEETS, STOCK (Mangel Wurzel)

Sow seeds in early fall and spring in rows. Plant 2½" to 4" apart. Later thin to 10" apart.

Mammoth Long Red—Very popular, 30 to 50 tons per acre. Roots grow half above the ground. Light red, flesh white with rose tinge. 110 days.

BROCCOLI

Plant and cultivate like cabbage and cauliflower.

Italian Green Sprouting (fr)—Plant bears a succession of sprouting heads about 5-in. long, which, if kept cut, will be replaced by others for 8 to 10 weeks. 55 to 65 days.

BRUSSELS SPROUTS

Easy to grow wherever conditions are favorable for late cabbage, and requires same culture. As sprouts begin to form remove lower leaves

so that all nourishment sent to lower stem will be forced into the sprouts. Do not use until after heads have matured.

Long Island Improved—Compact, uniform dwarf size plants. Cabbage-like sprouts 1¼" to 1½" in diameter. One of the most dependable varieties. 90 days.

SWISS CHARD

Requires about same treatment as beets. Cultivate frequently. Leaves may be gathered during summer and fall. New ones will grow quickly.

Lucullus—Most popular Chard. Upright in growth, with yellowish-green curled, crumpled leaves. Thick, broad and light green stems. 50 to 60 days.

Rhubarb Chard—Heavily crumpled leaves, dark green with a translucent crimson stalk. Easily grown, everywhere. A different, tasty, delicious flavor—cook stalks and leaves together for a new taste thrill. 60 days.

FEEDING IMPROVES QUALITY AND YIELD!

By feeding their vegetables adequately, home gardeners can not only enjoy increased yields, and higher quality, but can reduce substantially the work involved in gardening. Expense of feeding plants remains practically at its prewar figure.

To apply, stretch the line to mark the row in which seeds are to be planted. Then not less than two inches away on either side, make a furrow four inches deep. Pour plant food into each furrow at the rate of one pound

(or pint) for 50 feet, and cover it with earth. Then make the drill in which seed are to be sown and proceed with planting as usual.

The standard application of a balanced plant food for evenly distributed area coverage is 4 pounds per 100 square feet (a space 10x10 feet square). You may figure one pound per pint, so an area 10 by 10 ft. requires two quarts. One quart will feed 50 square feet and one pint 25 square feet.

CABBAGE

Sow seed in drills 6" apart across the bed, dropping the seed 5 to 6 to the inch. Firm soil after covering, then water thoroughly. Keep beds moist but not soaking wet. Seed germinates 3 to 8 days depending on temperature. Transplant to open ground when plants have made fourth pair of leaves. Space 12" x 24". Use plenty of good commercial fertilizer. Cultivate frequently, every 5 or 6 days until cabbages are large.

Yellows Resistant Varieties

Yellows Resistant Marion Market—Large, firm round heads, used for early kraut. A development from Copenhagen Market. 7-in., 4-lb. heads. 75 to 80 days.

Yellows Resistant Wisconsin Hollander—Late, excellent for winter storage and kraut. Similar to Hollander and Danish Ball Head. 7 to 8-in., 7 to 9-lb. heads. 100 to 110 days.

Standard Early Varieties

Copenhagen Market—Excellent, 'early short season type. Short stems, 6½-in., 3½ to 4-lb. heads. 65 to 70 days.

Early Jersey Wakefield—Pointed heads, small and firm. Earliest pointed variety. Plants compact. 62 days.

Golden Acre—Extra early variety producing uniform well-balanced head. Weighs about 3 lbs. Excellent quality. 65 days.

Late or Winter Varieties

Danish Ball Head or Hollander—A widely used late type. Deep, round, hard, compact heads, 7 to 8-in., 6 to 7-lb. Tender, crisp, fine for kraut. 100 to 105 days.

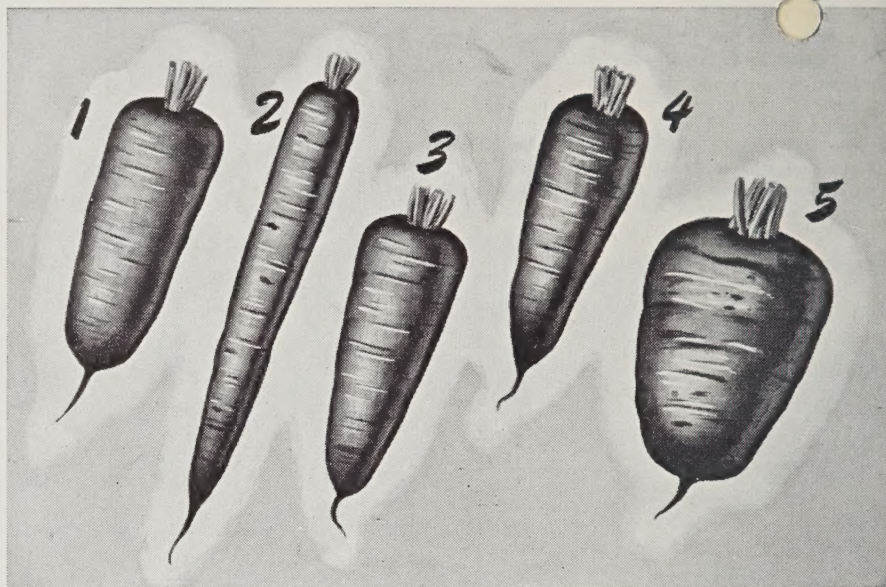
Premium Late Flat Dutch—The best late variety. Large, round, flat solid heads of perfect shape. Less inclined to burst than many varieties. Tender; fine quality.

Red Variety

Mammoth Red Rock—Best of the red cabbages. Hard, round. Purplish-red heads. Good keeper, 6 to 8-in., 7 to 8-lb. heads, 100 days.

CHINESE CABBAGE

Must never be grown as a spring crop since it will only go to seed. Plant after June 15, as days are getting shorter, then it will head. An excellent succession crop to follow early peas.



Some carrots reach deeply into the soil for food and moisture while others widen themselves in the topsoil. Above are comparative sizes and shapes of carrots. (1) Chantenay; (2) Imperator; (3) Danvers Half Long; (4) Red Cored Chantenay; (5) Oxheart.

Chihili or Improved Pekin—Dependable, early. Solid, tapered heads, 3 to 4-in. thick, 18 to 20-in. long. 75 days.

CARROTS

Use sandy loam enriched by manure the previous year, if possible; but any good land if deeply and well worked will produce a good crop. Sow seed as early as ground can be worked. Sow seed ½" to 1" deep in drills 16" to 18" apart. Press soil firmly above seed. When plants appear use cultivator or wheel hoe and thin from 2" to 6" apart, according to type. Keep cultivated.

Chantenay, Red Cored (fr)—Root has thick shoulder and tapers to slight stump root, 5-in. long. Red cored. 70 days.

Danvers Half Long—Sweet, tender roots, 6 to 7-in. long tapering to a blunt point. Fine for storing. 75 days.

Improved Imperator (fr)—Fine-grained, tender. Rich orange, indistinct core. Roots smooth, tapered to semi-blunt. 77 days.

Nantes Improved Coreless (fr)—Excellent for forcing. Tops small, roots bright orange, blunt ended. Flesh reddish orange and practically coreless. 70 days.

Oxheart or Guerande—Excellent for shallow soil, easy to harvest. Chunky, tender and sweet. Bright orange. Keeps well. 72 to 75 days.

CAULIFLOWER**Packet, 25c**

Needs rich soil and abundant watering. Cultivate same as cabbage but protect heads from sunlight to insure the prized white curd. This is done by gathering leaves together loosely as soon as heads begin forming, and tying them at the top.

Early Snowball (fr)—Best and most widely used early variety. Medium, firm compact heads of fine flavor. 6-7 inches in diameter. 55 days.

CELERIAC

Large Smooth Prague—(Turnip rooted celery). Smooth spherical roots, 2 to 3-in. thick. 120 days.

PROPER GARDEN SPADING A REAL ART

When the soil can be crumbled in your hand it is dry enough to spade. Spading wet soil forms clods that are difficult to break up. Mould a ball of soil in your hand and pat it to make a mud pie. If the pie holds together the soil is too wet to spade.

If you are going to tackle a sizable job of spading, it's good strategy to work at it only an hour a day. Then you'll be done before you realize it and the job will not be so exhausting.

There's a trick to spading for best results. Drive the spade straight down. Dig a trench and lay the soil from the trench, aside at the end. Now spade with the

blade not parallel to the trench but at right angles to it. Lift it up and turn the spade over so that the top soil, humus and plant food which you have added are dropped underneath and into the trench you have spaded previously.

When the last row is dug, carry the soil removed from the first row to fill in the last trench. If the good soil is deep, spade to a depth of 8 to 12 inches. If the top soil is shallow, avoid digging up the subsoil. Pulverize the soil, breaking up clods with iron rake and removing stones or trash. Just before planting any area of the garden, work that part finely and smooth off with a rake before laying out the rows.

CELERY

Start in shaded hotbed 60 days before needed. Cover seeds $\frac{1}{4}$ ". Transplant when 6" high. In setting outdoors, don't get soil in or over crown. Set 7" to 12" apart. Soil must be rich, moist and loose. As soon as plants have grown to 14" to 15" tall, set 12" boards on both sides of row and hold in place with earth. Or 4" drain tile can be used to blanch individual stalks. Celery must have warm, settled weather: If chilled, plants are likely to go to seed. Keep soil well fertilized and moist. Crop matures in cool weather of autumn.

Giant Pascal—Late variety for winter use. Large plant, dark green leaves. Big solid stalks that blanch to yellow white, 135 days.

Golden Self Blanching, Dwarf—Compact plants, yellowish green foliage. Broad solid stalks, nutty flavor. Blanches readily. 120 days.

Wonderful or Golden Plume—Early, medium plant with compact, full heart. Blanches easily to golden yellow. 112 to 115 days.

COLLARDS

Sow seed heavily and transplant when 4" high; or sow in rows in permanent beds and thin to 16" to 18" apart when plants are well started.

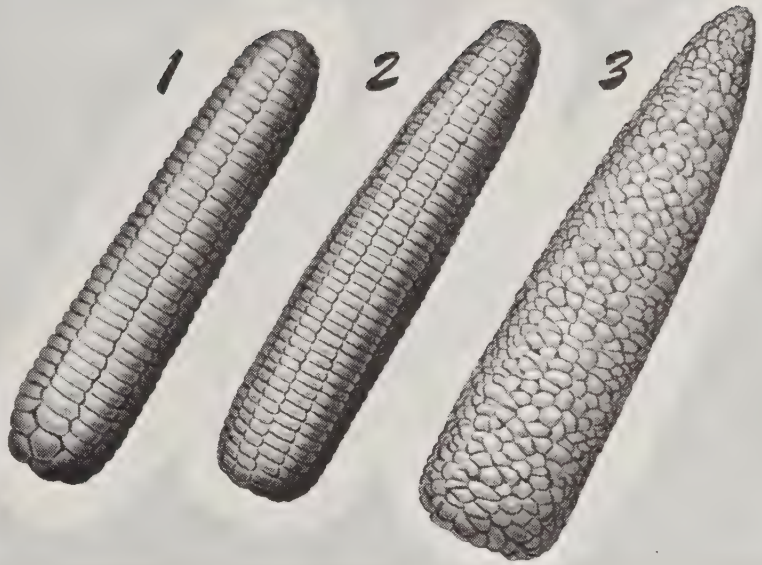
Southern or Georgia—An excellent cooked green. Long stemmed plant, with clustered leaves. Withstands heat and bad soil. 24 to 36 days.

SWEET CORN

For the home gardener, the simplest way to plant sweet corn is in rows or drills, not in hills. Plant on north side of garden or so late summer shade from your corn does not retard growth of other nearby vegetables. Space the rows 36" apart, and plant a seed about every 3". Thin stalks to stand 9" to 12" apart in row. The drill should be 3" to 4" deep, but don't cover seed with more than 1" of soil. The drill or furrow can be filled in as the plants grow to anchor them against the wind.

In hills, plant 4 to 6 grains per hill. Later thin to 2 or 3 stalks to a hill. Space several plantings at intervals of 14 days for continuous crop. Removing suckers has been standard practice with practically all growers. Now, experiments prove that removing suckers merely takes away extra food-producing leaves and so hurts rather than helps growth. Also,

Most Sweet Corn is really sweet only if it is home grown. As soon as it's picked, the sugar begins to turn to starch, and six hours after it's picked, most of the sweetness is gone. Illustrated above showing comparative row and kernel characteristics are (1) Golden Bantam (2) Golden Cross Bantam (3) Country Gentleman.



suckering often disturbs roots enough to injure plant. Always plant corn in several short rows side by side rather than one long row. Corn is pollinated by wind and rows side-by-side mean that all the stalks can be reached by the pollen. Many home gardeners, on reading newspaper accounts of corn de-tasseling, assume that this is necessary to set ears. On the contrary, removing tassels may cut the crop seriously. Detasseling is **only** done where hybrid corn is raised for seed purposes. The more pollen that flies, the better the set of kernels. So **don't** detassel sweet corn in the home garden. If weeds are under control, stop cultivating. If weeds are bad late in the season, work the soil as shallow as possible to avoid injuring surface feeder roots.

Hybrids

We offer Hybrid Sweet Corn varieties known as the best for your garden—the finest that can be procured anywhere. We list here only a few of these choice kinds. Whatever your needs or your preference, be sure we can supply you with the kind of corn you want. Talk it over with us.

Golden Cross Bantam (fr)—Extremely uniform. Ears 10 to 14 rows, slightly lighter yellow than Golden Bantam. Highly resistant to Stewart's disease. 85 days.

Ioana (fr)—1940 All-America. Ears 7½ to 8-in., well filled with 12 or 14 rows of deep medium narrow, light yellow kernels. Highly resistant to drought and bacteria wilt. 87 days.

Marcross (fr)—An early wilt-resistant hybrid, producing deep golden yellow kernels 7 days earlier than Golden Bantam. Ears 6 to 7-in. long, with 12-14 rows of large sweet kernels. 73 days.

Stowell's Hybrid Evergreen—White. Large ears about 8-in. long; big kernels, very sweet. One of the best late varieties. 95 days.

Open-Pollinated

Bantam Evergreen—A cross of Golden Bantam on Stowell's Evergreen. 14 to 18 rows. Deep, rich golden kernels, tender, sweet. 90 days.

Black Mexican—Pure white corn with purplish-black seed. Ears are 7 to 8-in. long, 8 straight rows. 88 days.

(Continued on Page 10)

SMART THINNING CAN INCREASE YIELD

There is no satisfactory way to avoid thinning. When too many come up, be thankful and consider the thinning out as an opportunity to select the best plants as the ones to survive.

For best results, thinning should be done gradually. In case of a crop which grows best when the plants stand four inches apart, do not at first thin it to one plant for each four inches.

It is foolish to discard all excess plants prematurely when accidents, insects or disease may destroy many which are left. If thinning is done by stages as the plants grow, they will finally stand at the optimum distance from each other, and there

will be small chance of vacant spaces in the row.

Lettuce plants, thinned to stand an inch apart, will soon reach a size when alternate plants can be removed to make a salad; and this process may be continued until the spacing is right for the remaining plants to mature.

Carrots may be thinned the first time when they are as thick as a pencil; and a dish of the thinnings will give those who have never eaten such tiny carrots before, a new idea of this vegetable.

Beets may be allowed to grow until about six inches tall, when their roots have just begun to swell.



SWEET CORN, Continued

Country Gentleman or Shoe Peg (fr)—Prolific late variety. Favored by canners. Irregular kernels, very deep, sweet. 93 days.

Golden Bantam (fr)—The best and most favorably known of all the yellow varieties. Stalks often have 2 ears. Ears 8 rowed, kernels broad, with tender hull.

Stowell's Evergreen—White. Large ears about 8-in. long; big kernels, very sweet. Good late variety. 93 days.

POP CORN

South American or Yellow Dynamite—Rich, creamy, yellow, smooth and round kernels, which pop double size of others. Ears 8 to 9-in. long. Vigorous grower. 115 days.

New! Hybrid Pop Corn

You will be delighted with the new hybrid pop corn. Yields are terrific; every plant produces corn with satisfying, big ears, with uniform popping ability. ASK US ABOUT THESE NEW HYBRIDS!

CUCUMBER

Select soil fully exposed to sun and enrich thoroughly with fertilizer. Sandy soils with plenty of compost are best. Roots have difficulty on heavy soils. Plant 8 to 10 seeds in a "hill." Plant each hill about 36" apart. Cucumber vines like to stretch out, so plant rows about 4 feet apart. The old tale that melons or squash will cross pollinize with cucumbers and affect their taste if planted nearby is untrue. When vine is 6" long, thin to three strongest plants. Keep fruits picked to promote continuous fruiting. Use plenty of moisture; cucumbers are 90 per cent water.

A and C—A long dark green cucumber which merits a trial. Uniform nearly cylindrical, well rounded at ends.

Cubit—Won Bronze Medal Award in 1944 All-American Selections. Dark green, white spine cylindrical with blunt ends. Firm flesh and uniform coloring. New and worthwhile.

Davis Perfect—Midseason. 9 to 10-in. long, tapered ends, good color. 68 days.

Early Fortune—Rich, dark green fruits with firm, crisp, pure white flesh. Grows to 9 by 2½-in. Ships well and is highly resistant to disease. 66 days.

Long Green Improved—Black spined, good pickling. Grows 10 to 15 in. long. 70 days.

Marketer—Fine new variety, very prolific. Attractive rich, dark green color,

carried right down to blossom end. Crisp, icy-white flesh. 7¾-in. long 2¾-in. diameter.

National Pickling—Rich dark green. Straight and rather blunt at ends but not chunky. Best all-around pickler. 55 days.

Straight Eight—Unsurpassed as slicing cucumber. All-American Selection. 2½-lb. fruits, rounded at ends, medium green. 68 days.

EGGPLANT

Requires continuous warm weather for best results. Seed should be started in a hotbed, as it is slow to germinate. Set plants in open ground when 2" tall and protect from hot sun when young. Be sure to keep young plants developing rapidly. Cultivate freely. To produce large fruits, remove lateral branches so as to reduce number of fruits per plant. Spray to protect from potato bugs.

Black Beauty (fr)—Large, egg-shaped, smooth, very dark purple fruits. Keep well. Plant bears 4 to 5 fruits. Early.

New Hampshire Hybrid—Developed for short season areas. Round to olive shape fruits, growing low on the bush.

ENDIVE

Strictly a cool-weather crop: gets bitter at temperatures much above 80 degrees. Even moderately warm weather causes the plants to produce seed stalks. Plant very early. For late fall, sow early in middle autumn. Use last planting as late fall salad crop, and store surplus in cold frame or cellar by digging each plant with ball of soil. Plant in shallow drills with rows spaced 18" apart. When 4 inches tall, thin out to stand 6 inches to a foot apart. To blanch, gather the outer leaves together and tie with soft twine or raffia. Do this when plant is nearly grown. Strings should be untied after a rain to permit leaves to dry and avoid rotting.

Full Heart or Escarole—A strongly bunched mass of thick, slightly crumpled leaves, well blanched heart. Upright growing plant about 12 inches in diameter. 71 days.

Green Curled Ruffec—Plants 16 to 18-in. in diameter. Fine fall variety. White, tender, fleshy. 95 days.

HERBS

(Aromatic, Medicinal and Kitchen)

Every garden has a place for herbs, in the vegetable garden or for their



HERBS

1. Chives 2. Dill 3. Marjoram, Sweet 4. Sage 5. Sweet Basil 6. Thyme.

ornamental appearance in the flower garden.

Anise—An annual—used for garnishing, seasoning and for cordials. Seeds have an aromatic flavor. Plants 14". 75 days.

Basil—Sweet—Annual; Ht. 12" to 18". Leaves, green or dried, are chiefly used as a seasoning for soups, stews, etc. 85 days.

(Continued on Next Page)



TO SAVE SPACE, LET THEM CLIMB . . .

All cucumbers will climb if they are permitted to do so. In a small vegetable plot, cucumbers, tomatoes, peas, and beans can be grown on the fence.

When garden space is limited, wise home gardeners will exploit the air rights of their holding, and grow those vegetable crops that like to climb.

Cucumbers are among these, and any cucumber will be happy climbing a fence, whether it is called a climber or not. Even those with the largest fruits so heavy you might think they would need support, seldom do.

Careful tests have shown that on a given ground area more tomatoes can

be grown on plants pruned to a single stem and tied to a stake or fence, than in any other way. They ripen earlier, too, and in many ways this method is best for the small vegetable garden.

Keeping tomato plants pruned and tied needs constant attention. At the joint where each leaf grows on the main stem, a branch will develop, and this must be cut or pinched off before it is four inches long, otherwise its removal may weaken the plant.

Varieties of normal vine growth are the only kind that should be staked and pruned.

(HERBS, Continued)

Borage—Annual; Ht. 12-18". Young tender leaves are used as salad and also used to flavor lemonade and other cooling drinks. 80 days.

Caraway—Biennial; Ht. 18-24". Seeds used for flavoring. Young leaves and shoots used for flavoring salads. 70 days.

Coriander—Annual; Ht. 24-30". Seeds used for flavoring and in candy and to mask taste of medicine. 75 days.

Chives—Perennial; Ht. 6". Tops, finely chopped for adding mild onion flavor to soups, stews, salads, etc. 80 days.

Dill—Annual; 2' to 3'. Seeds and leaves used for flavoring—especially for dill pickles. 70 days.

Fennel, Sweet—Biennial; Ht. 2' to 4'. Leaves are used for garnishing, fresh stems tender, eaten raw like celery or in salads. Seeds used for flavoring. 60 days.

Margoram, Sweet—Annual; Ht. 1' to 2'. Used for seasoning either fresh or dried. 70 days.

Rosemary—Perennial used as annual; 2' to 4'. Fragrant odor and warm, pungent taste, acceptable seasoning.

Sage—Perennial; Ht. 14" to 16". Used for seasoning either fresh or dried. 75 days.

Thyme—Perennial; Ht. 8" to 12". Aromatic foliage used as seasoning. 85 days.

KALE OR BORECOLE

Early fall or spring sowing. Either in rows or broadcast. To produce large plants have rows 2' apart and thin to 2' in rows. Leaves are best after coming of cool weather in fall.

Dwarf Blue Curled Scotch—Wide spreading, fine curled blue-green plant plume-like leaves. Use as a vegetable and for ornament. Exceptionally uniform. 55 days.

KOHLRABI

Sow seed in early spring or fall and when well established thin to 6" apart in the row. Even better to start it in beds and transplant same as cabbage. Planting at intervals of 10 days gives tender bulbs until hot weather. Must be used when young. Woody when old.

White Vienna Early (fr)—8 to 10-in. leaves on slender stems. Bulbs 2 to 3-in., globular light green. Crisp, tender, clear white flesh. 55 to 60 days.

LEEK

Large American Flag—An early, popular variety, with thick, long white stems.



The kind of lettuce you can grow at home—really crisp, fresh lettuce is the kind every master chef sighs for. Three types of lettuce are shown above, (1) Black Seeded Simpson; (2) Iceberg; (3) Cos.

Leaves large and drooping, medium green. 130 days.

LETTUCE

Keep lettuce growing rapidly for best results. A light, rich soil needed for this. Earliest varieties must be started from seed in cold-frame. As soon as open ground can be worked, transplant. For later use, sow seed in open ground as soon as weather is favorable. Thin plants in rows 4" to 8" depending on variety.

Remember that lettuce is a fast-growing, rich feeding crop. Give it plenty of water. And use your compost or well-rotted manure liberally on the lettuce row. A light sprinkling of nitrate of soda will pay, too, because lettuce thrives on lots of nitrogen.

Heading or Cabbage

Bibb—Early, small headed lettuce of excellent quality and flavor. Perfect for home gardens. Very smooth, dark green leaves, bleaching to a rich yellow.

Big Boston or Mammoth Boston—Popular for cold frame forcing and outside culture. Medium, compact heads with creamy yellow heart. Smooth, glossy leaves, edges wavy, and slightly tinged with reddish brown. 75 days.

Great Lakes—All-America award. An outstanding new Iceberg or Crisp-head type. A summer lettuce that stands heat

well and is very resistant to tip burn. Heads medium size, solid, crisp.

Iceberg—Late, large variety. Compact heads, crumpled, crisp and sweet. Leaves light green, slightly brown on edges. 85 days.

Imperial No. 847 (Florida Iceberg)—Heads are of good size and solid. Does well in hot weather, and is resistant to tip burn. Very hardy. 83 days.

New York No. 12—The standard crisp-head lettuce. Large globular shaped head, dark green with blanching, silvery white heart. Successfully grown outdoors spring, summer and fall. 85 days.

White Paris Cos or Trianon—Medium large self-folding, dark green leaf shaped heads. Greenish-white, well blanching interior. 66 days.

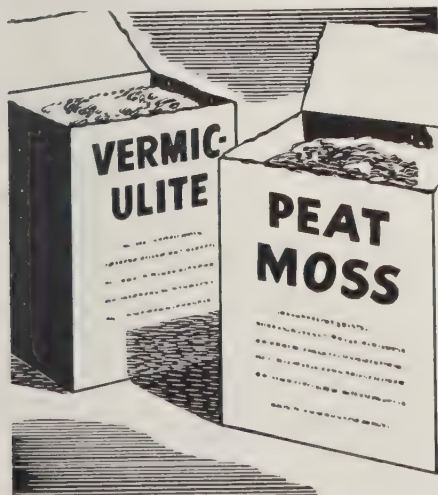
Loose Leaf Varieties

Black Seeded Simpson—Light green, frilled and crumpled. 45 days.

Grand Rapids—Erect, compact plants. Light green, broad heavily fringed. For forcing or early planting. 43 days.

Oak Leaf—The most popular leaf lettuce for home gardens. Rich, dark green leaves, tender and delicious. Outstanding resistance to hot weather.

Prizehead—Early non-heading sort. Medium sized plants, crisp and tender. Color light brown on a medium green base. Leaves frilled at edges, and crumpled. 47 days.



HUMUS A MUST FOR SOIL CONDITIONING

In the proper preparation of garden and lawn soil for planting, humus in most cases should be added. Without humus, soil is as lifeless and inert as sand. Humus consists of decomposed plant and animal matter microscopic and larger. Peat Moss is a humus, a many years accumulation of decayed water plants and organisms from bogs or ponds.

The addition of peat moss to soil accomplishes a four fold objective: (1) it supplies the plants with many elements essential to growth; (2) blotter-like in quality it absorbs and retains moisture in the topsoil where it is most needed; (3) the soil texture is improved by making it looser—allowing plant roots greater freedom in their reach for food and moisture; (4) creates an environment suitable for bacteria

and other microscopic life to break up the complex soil chemicals in simpler forms more easily absorbed by the plant.

A very recent scientific addition is Vermiculite, also known as Terra-Lite, is the new mineral which likewise performs many of the functions of peat moss. Its freedom from weed seeds and exceptional ability to retain moisture makes it well worth your consideration for soil conditioning.

The type and amount of humus to use and methods of application ARE STRICTLY A LOCAL PROBLEM TO MEET LOCAL SOIL CONDITIONS. Another sound reason why your local seedsman KNOWS BEST. See our Supply Section in the back of this book.

MANGEL WURZEL

(See Beets, Stock)

MELONS**Muskmelon and Cantaloupe**

Easily injured by cool weather. Before planting, spade liberal forkful of well rotted manure into each hill. Plant 8 to 10 seeds to a hill. Thin plants to four per hill after third leaf develops, and train vines in different directions. On moist ground, use shingles to hold melons off ground to prevent rotting. If grown in cool weather or where nights are cold, will not bear well and melons will have poor flavor.

Bender's Surprise—Similar to Tip Top. Coarse netted 7-lb., oblong fruit, distinctly ribbed hard greenish-yellow skin. Flesh bright salmon, 95 days.

Hale's Best—Flesh thick, deep salmon-pink, sweet and tasty. Heavily netted rind, with faint stripe. Small seed cavity. Outstanding variety, resistant to powdery mildew. 4 lbs. 86 days.

Hearts of Gold or Improved Hoodoo—Nearly round 2-lb. fruit, distinctly ribbed, deep green with fine grey netting. Thick, deep salmon flesh, tender sweet. 94 days.

Honey Rock or Sugar Rock—Round, 4-lb. fruit. Gray-green skin, coarse, sparse netting. Orange-salmon, thick flesh, fine flavor, 85 days.

Pride of Wisconsin—Small seed cavity and thick, orange flesh, excellent flavor. Matures early. Large size. A new melon which is deservedly becoming a leader. 92 days.

Rocky Ford—Fruits small with rather large seed cavities. Nearly round, 2½ lbs. No ribs. Flesh thick and green with golden tinge at center. Very juicy and spicy. Excellent quality. 92 days.

WATERMELON

Requires about same culture as muskmelon, except the vines need more room. Fertilize each hill liberally and cultivate thoroughly.

Cole's Early—An early variety for the North. Medium size fruit, short oval with alternate dark and light green stripes. Pink-red flesh, black seeds and tender rind. 75 days.

Dixie Queen—Very prolific. Bright red, crisp, splendid quality fibreless flesh. Very few small, white seeds. 85 days.

Kleckley's Sweet or Wondermelon—Large, cylindrical, dark bluish-green, with thin, tender rind. Bright red, juicy, sweet flesh, creamy-white seeds with traces of brown, 85 days.

Stone Mountain—Also called Dixie Belle. High quality shipping variety. Fruits very large, oval-round, blunt ends. Dark green, tough rind. Flesh rich scarlet, fine grained, sweet. Seed white with black tips. 90 days.

Tom Watson—Red heart strain. Large fruit, uniform cylindrical, with tough, elastic rind, faintly veined. 90 days.

MUSTARD

Sow as early as possible in the spring. Keep rows 6" to 12" apart and cover with soil ½" deep. You may also sow seed in autumn to raise greens and for salads.

Fordhook Fancy—Upright growing, mild variety. Bright green leaves, plume-like and deeply fringed on the edges. 50 days.

Southern Curled Giant—Large, frilled and crumpled. Light green leaves. 35 days.

OKRA OR GUMBO

Sow in rows about 3' apart. Cover seeds with about 1" of fine soil firmly pressed down. Thin plants 18" to 24" apart when they reach 3" growth. Do not plant until ground is warm, as this is a tender, hot weather plant. Pick before woody fibres develop.

Dwarf Green—Early, prolific dwarf growing sort. Dark green fluted, 5 to 7-in. pointed pods. Most desirable, compact growing okra. 50 days.

Perkin's Mammoth Long Pod—Early and prolific. Very tender, long pods. Deep green and slightly corrugated, 68 days.

ONIONS

Plant as soon as soil can be prepared. For best yield, plant on very fertile land—fall plowed, and thoroughly fertilized. When plants are a few inches tall, thin to prevent crowding—using the plants removed

as green onions. Leave 4" apart for globe-types and 6" for the big bunching types to mature for dry onions. Latter can also be started indoors for largest bulbs and can be set out 6" apart after frost danger has passed. All onions need liberal feeding and watering. Those left to become fully ripe can be stored for winter. Cultivate and hand weed every 2 weeks during summer.

Yellow Varieties

Yellow Sweet Spanish—Large, globe-shaped, exceptionally mild and sweet—excellent for eating raw or boiled. Light yellow skin and pure white, firm, crisp, and tasty flesh. 112 days.

Yellow Globe Danvers—An oval shaped straw-colored onion. White flesh, crisp and mild. Splendid keeper. 110 days.

White Varieties

Southport White Globe—Best of the whites. Medium-sized, round, solid white bulbs, fine thin skin. Waxy white flesh, mild and fine grained. Keeps well in fall. 110 to 112 days.

White Bunching—A good Spring appetizer. Crisp and mild. Fine for cooking when grown larger. 60 days.

White Portugal or Silverskin—Excellent flat variety. Dependable cropper, excellent for sets, for green bunching, or as a pickler. 100 to 102 days.

Red Varieties

Southport Red Globe—Finest of all red onions. Perfectly round, good sized bulbs with thick, small necks. Skin is deep purplish-red. Strong flavored flesh, white tinged with pink. Good keeper, productive. 112-114 days.

ONION PLANTS

Sturdy, hardy plants that come to you all ready to set out. Ask for prices.

ONION SETS

Onion sets used instead of seeds will produce earlier crops of green onions or large bulbs. Plant sets right side up and cover with garden rake; then firm the soil well over the sets.

RED WHITE YELLOW

SPECIAL TECHNIQUE USED IN SOWING HILLS

Hills are "holes" on points, and distinguished from drills, which are rows. Plants sown in hills are usually either vines, or large bushes, which need so much room in the row they cannot be sown in drills. For example, cucumbers, melons, squash, sweet corn, bush squash and tomatoes.

The procedure is to stretch a line, just as you would for a seed drill, and along this mark the location of the hills at the proper intervals.

Scoop out a shallow depression and mix with the soil at its bottom a quantity of plant food, which may vary from a tablespoonful to a pint. The latter heavy dose is recommended by southern watermelon experts, for hills in which this crop is

sown. Mix the plant food thoroughly and cover it with fresh soil, almost filling the hole; then sow the seed and cover with light soil, which can be depended upon not to form a crust before the seeds have sprouted.

When the seeds sprout they should be thinned out to the required number of plants. For those that grow in bush form, one plant to a hill is all that should be grown. Sweet corn is sometimes grown three plants to a hill; and vine crops the same. Thinning should be gradual, at first enough to insure each infant plant a chance to grow without interference from neighbors. Then as the plants become established the weakest should be eliminated until only the desired number remain.



DOV TO-EARTH ANSWERS TO EVERY-DAY QUESTIONS

The Home Gardening Guide sections of this and following pages of our Garden Annual tells, in as few words as possible, what every gardener should know. It is planned to be of informative value to you the whole gardening season, not as a mere garden starter. Here you will also find practical every day facts you'll want as a foundation for successful gardening.

All the data in the Home Gardening Guide sections is necessary information for the gardener of limited experience. We urge all such gardeners to study and follow the suggestions offered here.

The good seed we sell you will yield results in direct ratio to your observance of these notes. Much of what we say is, of course, already known by the old timers. But some of our facts are necessary reference material for all gardeners.

If you still have questions unanswered after reading this book, come in and let's talk them over. Take advantage of our wealth of experience . . . it's yours for the asking.

8 Fundamentals of Planning

No one can fully plan your garden for you, because garden planning is a highly personal, individual matter. Give your own ideas and desires plenty of play—and you'll enjoy your garden more.

There are certain absolutely basic facts that apply to all home garden planning.

1—Plan to use your garden full time. To do this you'll need catch crops, intercrops (also called companion crops) and succession crops. **Catch crops are early vegetables**, like spinach, that you grow very early before a crop like late cabbage is set out. **Intercrops are planted between the rows of larger vegetables**, like head lettuce between rows of broccoli. **Succession crops are catch crops in reverse**—they follow early crops. For instance, Chinese

cabbage will mature fine heads if planted after an early crop of peas has been taken.

2—Divide the garden into three sections if possible, (1) Root vegetables, (2) Leaf vegetables, and (3) Fruit vegetables. By switching these three groups every year you avoid many soil-borne diseases and insects and get better use of fertilizers. This isn't absolutely necessary, but it is one of those details that the smart gardener watches.

3—On level ground, you can run either east and west or north and south. If east-and-west layout is used, be sure to plant taller vegetables to the north. **On sloping ground**, the rows must run across the slope, not up and down. Otherwise all your plant food and much of your topsoil will go down the hill when it rains.

4—Plan to grow enough vegetables for storing and canning. Remember that correct storage begins with planting so provide for this when planning your garden and ordering seed.

5—In smaller gardens, don't plant space-wasting crops like Potatoes, Pumpkins, Sweet Corn and Vine Squash. On the farm these can be grown with the field crops, saving the more highly cultivated garden space for the more productive vegetables that need closer attention. **Many gardeners report that Zucchini and other bush squashes gave better results than Eggplant and satisfied many of the requirements for vining Squashes.**

6—Include perennial vegetables when possible. Rhubarb, Asparagus, Horse Radish and Perennial Onions can be grown on one side of the garden where they won't interfere with plowing or cultivating. Small fruits should be included whenever space will permit, since the quality of home-grown berries is far better than any you can buy.

7—Avoid growing vegetables your family doesn't like and won't eat, but be sure to include plenty of those they do like. If they're fond of beans, for instance, don't be satisfied with a single large planting, but make several smaller plantings at two weeks intervals.

8—Study the chart on page 22. This will tell how far apart rows should be, how long each crop takes to mature, and how much space you will need to provide the vegetables your family likes. After you have taken into consideration the crops you want to grow, make a rough sketch showing the location of each crop, with catch crops, intercrops, succession crops indicated.

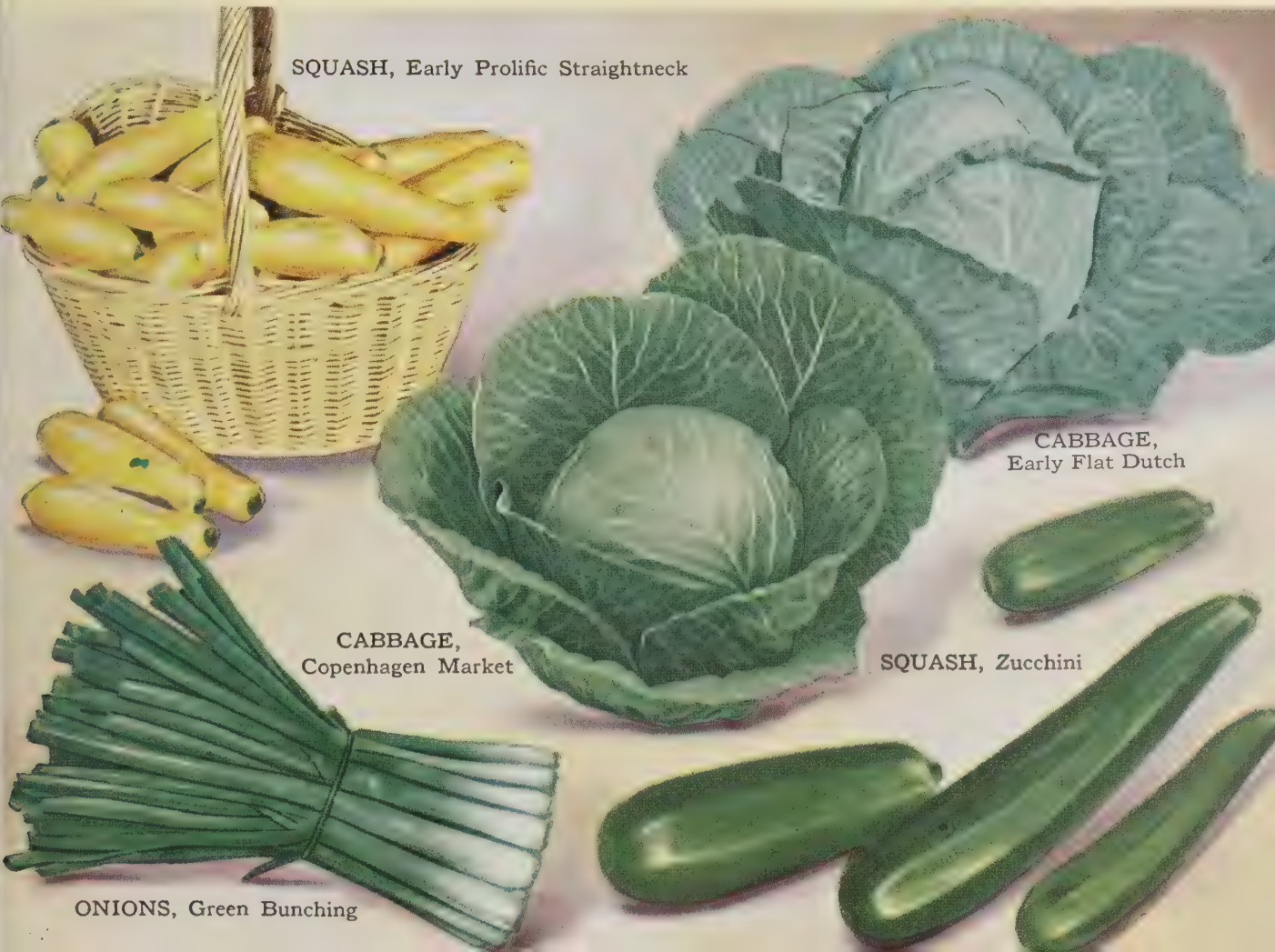
SQUASH, Early Prolific Straightneck

CABBAGE, Early Flat Dutch

CABBAGE, Copenhagen Market

SQUASH, Zucchini

ONIONS, Green Bunching



PARSLEY

Does best in rich, mellow loam. Seed is slow to germinate, and is helped by soaking in warm water overnight before planting. Sow early and not too deeply. Space plants 6" apart. When curled varieties are about 3" tall, cut off leaves. The new growth will be brighter and curlier.

Moss Curled or Triple Curled—Compact, dark green leaves, curled and fine-cut, 70 days.

PARSNIP

Needs rich, mellow soil for best growth. Must be planted as early as ground can be worked. Soil must be loose to a depth of 12" and cannot be heavy. Rows should be 15" to 18" apart. Cover seed 1/2" and press down soil. Thin out to 4" when plants have made a good start. Cold weather turns starches into sugar and improves flavor. Roots are hardy: leave in ground over winter if desired.

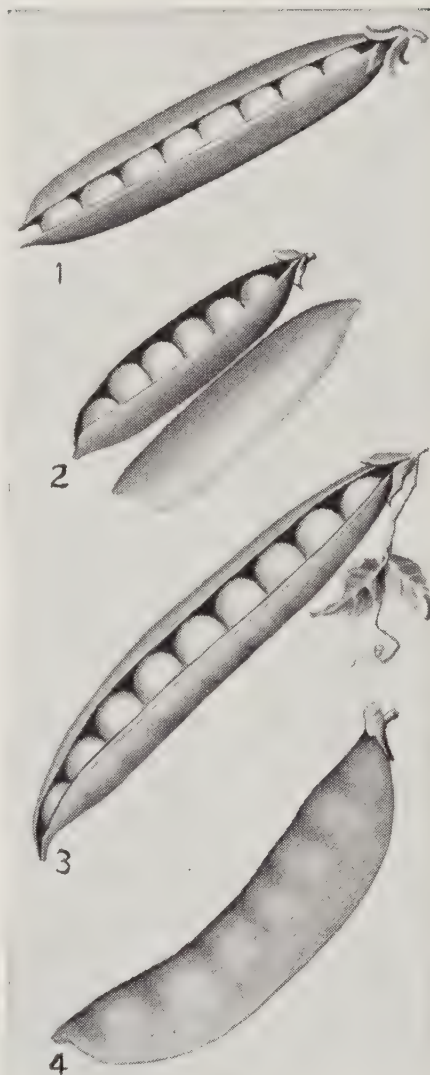
Hollow Crown (fr)—The most generally grown kind. Roots 2 1/2 to 3-in. thick at shoulder. 12 to 14-in. long, uniformly tapered, hollow crowned, 95 days.

PEAS

Early peas need a light, warm soil; but general crop thrives best in moderately heavy soil. (Avoid fresh manure and very rich or wet, mucky soil as this produces large growth of vine at the cost of quality of the peas.) Plant seed in rows at 2" depth. Keep rows 21" to 28" apart for dwarf varieties and 28" to 42" for the taller types. Gather crop as fast as it is fit to use or new pods will cease to form and those partly advanced will cease growth. Plant variety Alaska as soon as ground can be dug. Plant wrinkled varieties (which have better flavor) when narcissus buds show color or when crocuses are in bloom. Peas are not satisfactory when weather turns hot. Tall varieties must be staked. Most home gardeners prefer dwarf varieties like Little Marvel. Peas want well-limed soil. Don't forget, inoculation improves production.

Early and Second Variety

Alaska—Wilt resistant. Used for canning and early home garden. Blunt,



Peas, a comparison of shapes and sizes: (1) Laxtons Progress; (2) Little Marvel; (3) Alderman or Dark Podded Telephone; (4) Mammoth Melting Sugar.

straight, light-green, 3-in. pods. Plants 32-in. 60 days.

Laxton's Progress (fr)—Medium dark green vine, 16 to 18-in. Single pods

almost an inch wide and 5-in. long, with 7 to 9 large peas. 62 days.

Little Marvel (fr)—Outstanding, dwarf. Fine quality, large yield. Single and double, dark green, 3-in. pods—blunt, plump, well filled with 7 to 8 medium sized, light green tender peas. 62 days.

Thomas Laxton (fr)—Medium height. Strong vine bears numerous dark green, blunt ended pods, 4 to 4 1/2-in. Retains flavor and sweetness. One of earliest. 57 days.

Later Varieties

Alderman or Dark-Podded Telephone (fr)—Large podded variety of the Telephone family. Excellent for home gardens, truckers, shipping to distant markets and for freezing; resistant to Fusarium wilt. Vine dark green, coarse. Pods single, very broad, plump, straight, dark green, pointed; contains 8 to 10 peas of highest quality. Seed large, wrinkled, light green. 74 days.

Hundredfold or Laxtonian—Exceptionally choice and prolific. Dark green. Rather coarse vines. Straight pointed, well-filled 2 1/2" pods. 62 days.

Edible Podded or Sugar

Mammoth Melting Sugar—Wilt resistant. Coarse light-green vine, 54-in. Single 4 1/2-in. pods, broad, indented light, blunt, stringless, without fiber, fleshy. Contains 7 peas. Seed large, round, creamy-white. 74 days.

PEPPERS

Need long growing season: start indoors 8 weeks before plants are wanted. Set plants 15" x 24" and feed liberally for bigger fruits.

Warm, mellow soil in sheltered location is best. Cultivate regularly, drawing soil up around stems. When plants are 7" to 8" tall, hoe in light dressing of commercial fertilizer. Do not plant hot peppers near sweet; they are apt to cross.

Hot

Hungarian Wax—Slender, waxy yellow fruit about 6-in. long, turns red when ripe. Very hot. 65 days.

Continued On Next Page

**WHEN PLANTING PEAS REMEMBER . . .**

Since only the seed of garden peas are used, the food yield is small compared to the space they take.

The first sowing of peas should be made early as possible, having in mind that the finer varieties, which have wrinkled seed, may decay if the soil remains cold and damp too long after they are sown. Smooth seeded peas will not decay so easily, but they are not of as high quality as the wrinkled kinds.

When spring comes late and summer follows quickly, only one crop of peas is likely to be successful. In new gardens, or old ones where peas have not been grown before, the seed will grow better

if inoculated with a bacterial culture which can be obtained for that purpose.

Plant food should be applied at the rate of 4 pounds to 100 feet of row, either mixed well with the soil before sowing, or spread in trenches on either side of the row, a little deeper than the seed are sown.

Where weather conditions are favorable to peas, it is possible to grow them in twin rows six inches apart; in the space between the rows the weeds are pulled, but the soil is not cultivated. In less favorable sections however, single rows, regularly cultivated, will be found more dependable.

PEPPERS—Continued

Long Red Cayenne—The hot favorite. For canning, pickling, drying. Pungent flavored fruit, tapering and twisted. 70 days.

Sweet

California Wonder Improved—Number one quality peppers, about 4-in. long and 3½-in. diameter, very smooth, 3 and 4 lobed, glossy green, turning bright crimson when ripe. Remarkably

Pimento or Perfection—Best of the medium sized sweet peppers. Excellent for stuffing. Smooth, heart-shaped, about 3-in. long. 125 days.

Ruby King—All-America, bred for size and uniformity. Dark green turning to bright deep red fruit. Thick flesh sweet and mild. 60 days.

World Beater—One of the best large peppers. Glossy-green, changes to bright red. Mild, very sweet, thick flesh. 75 days.

PUMPKIN

Plant in middle of spring among corn; or in hills 8' apart each way. Drop 4 seeds to a hill. If planted in hills, cultivate the same as melons and cucumbers. For winter use gather before frost (leave stem 3" to 4" long) and store in warm, dry place.

Connecticut Field—Large fruit with flat ends, 15 to 25-lbs. and up to 15-in. Surface, slightly ribbed, deep orange. 118 days.

King of the Mammoth—Largest of all pumpkins. Valuable for stock feeding and exhibition. Globular, slightly ribbed, flattened, weigh 60 to 90-lb. Flesh solid, yellow-orange, coarse, but good quality. 120 days.

Small Sugar or New England Pie—Desirable for pie or general use. Round, flat end fruit, deep orange. Thick, yellow-orange flesh. 118 days.

RADISH

Soil should be light, quick and rich to insure rapid growth. Slow growth makes the flavor too strong. Sow as early as ground can be worked, as radishes are very hardy. Make suc-



Fresh tempting crisp radishes! Usually the first food your garden yields, plant a variety and sow them intermittently at 10 day intervals for season-long enjoyment. In our illustration above is a comparison of varieties: (1) Chinese Rose Winter; (2) Long Black Spanish; (3) White Icicle; (4) Crimson Giant; (5) Early Scarlet Globe, and (6) French Breakfast.

cessive sowings up to hot weather. When in the third leaf, thin to give roots plenty of room. Pull promptly when mature. The secret of crisp, delicious radishes is quick growth, prompt picking.

Crimson Giant—Large round, 1 to 1½-in. Deep crimson roots. Very crisp and tender for its size. 28 days.

Early Scarlet Globe—Globular, slightly elongated, bright scarlet, 24 days.

Early Scarlet Turnip, White Tipped—Carmine red with white tip. Flesh white, crisp and mild, 26 days.

French Breakfast—Roots thicker toward bottom. 1½-in. long by ½ to ¾-in. Dull scarlet, white tipped. 25 days.

White Icicle—Tapering roots 5 to 5½-in., very white, mild flesh. 27 days.

Fall and Winter Varieties

Celestial or Chinese White Winter—White flesh, rather mild in flavor. Roots large, 8" long and 2½ to 3 inches in diameter, cylindrical with heavy shoulder, 60 days.

Long Black Spanish—Good keeping winter variety. White, crisp and pungent. 8 to 9-in. long, slightly tapered. 58 days.

Round Black Spanish—Top-shaped, 3" to 4". Flesh white, crisp and of strong flavor. 56 days.

RUTABAGA

(See Turnip)

SALSIFY

Light, rich soil best and it must be stirred to a considerable depth. Sow in rows 18" apart. Cover seeds firmly with ½" of fine soil and thin plants later to 2" to 3" apart in the row. Cultivate the same as carrots.

Mammoth Sandwich Island—A palatable and nutritious vegetable when cooked. Flavor is remarkably similar to oysters. 120 days.

**ALL PRICES
IN THIS CATALOG
ARE SUBJECT TO CHANGE
WITHOUT NOTICE**

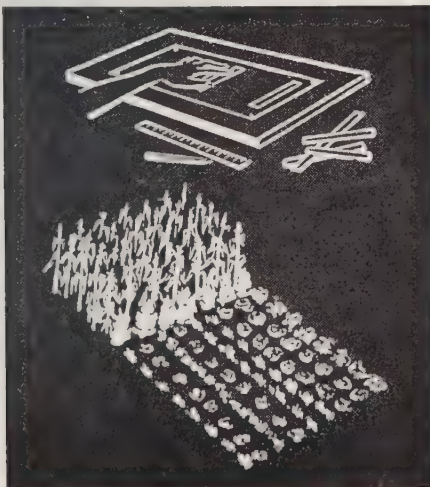
PLANNING ON PAPER, SAVES TIME AND LABOR

That old remark, "To save headaches later, plan it on paper!" isn't a very good rhyme, but it's extra good sense. Once you've tried it, you'll never again plant without a carefully drawn plan!

The best procedure is to start with a very rough sketch. Try all your ideas and combinations during this rough sketch stage. Then, when you've got what you want, convert your rough sketch into a final plan, drawn to scale. A scale of one-quarter of an inch representing one foot works

very well, because by using 1/16 of an inch as three inches, almost any standard spacing of the rows can be shown in exact scale. Save this plan from year to year so you can remember where each crop was. This will enable you to rotate root crops, leaf crops and fruit crops.

With the plan complete, you are now ready to order your fertilizer, seeds, tools and insecticides. It is to your advantage to do this as early as you can. Late in the season many desirable varieties may be sold out.



5 Facts on Site and Soil

Even though you may not have any freedom of choice for the location of your garden, there is still much that you can do to make the most of your site and soil.

1—Locate the garden in an open spot that receives at least six hours of direct sunlight each day, away from the roots of trees that might rob the soil of moisture and fertility.

2—A rich sandy loam is the best garden soil, but if you have either heavy clay or light sand, the same materials will improve both—decayed vegetable matter—old rotted manure, peat moss, commercial humus or well-rotted leaves.

3—Don't apply lime unless it is really needed. Usually a soil that will grow good beets is all right. If beets do poorly and grow irregularly, you can add about 50 lbs. of hydrated lime or 100 lbs. of ground limestone to each 1,000 square feet of garden. If you have a pH tester, most flowers and vegetables will do well in a soil between 6.0 and 7.0.

4—Do supply plant food. Before digging or plowing the garden, apply 4 lbs. of balanced fertilizer over every 100 sq. ft. of garden. Divide fertilizer into two lots, sowing one with the wind and the other across the wind. Or, better yet, use a fertilizer spreader.

5—Don't plant in wet ground. No soil is right for gardening that can't pass the "mud pie" test. To make a mud pie test, pick up a handful of soil and squeeze it slightly. If it balls or packs together and won't crumble when you apply light pressure, it is too wet to work.

Planting the Seed

Place a stake at each end of the row and stretch a line tightly between them. **Don't try to make rows without a line or straight edge.**

Make the furrow for the seed with a hoe. **Fine seed** (onion, lettuce, cabbage, etc.) should not be planted more than 1/2" deep. **Medium seeds** (okra, spinach, cucumber) 1" deep. In heavy soils, beans, squash, onion sets and peas need not more than 1" but the soil must be moist. In lighter soils, 2" is deep enough.

The old theory that seed should be planted deep enough to come in contact with soil moisture still holds, but in dry weather the soil should be watered thoroughly before planting so the moisture will be right at the surface. If the row is then covered with a board until the seed germinates, it will not be necessary to bury the seed even though the weather is dry. Tear the corner from the pocket. If seeds are very small, mix with three times their bulk of perfectly dry sand, then hold the packet over the row, tapping gently with your forefinger. This enables you to distribute the seed more evenly and avoid sowing too thickly.

Don't sow seed too thickly. To do so wastes both seed and labor as the crowded seedlings must later be thinned by hand to allow space for proper development. Also, poor growth and poor quality vegetables result if seed is sown too thick and not properly thinned. (This is true whether planting in seed flat, hotbed or in open ground.)

When to Sow

Seed catalogs and garden books usually offer you a list of definite planting dates. We'd like to do this, too, but experience has taught us that such dates are often dangerous. Weather variations from year to year are likely to make the most carefully compiled dates look foolish.

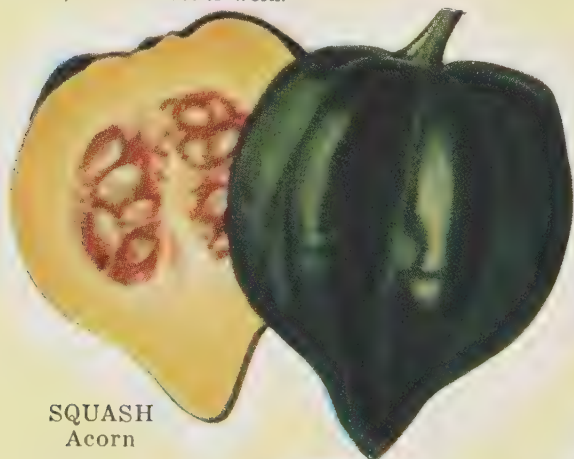
Here's a guide to planting time that doesn't rely on dates, but rather on Nature's own signs.

FULLY HARDY CROPS: Sow as soon as the ground can be worked in spring, or when the farmer plants oats. In some years crocuses and snowdrops may be in bloom at this time, but if the ground is ready sooner, plant anyway. These crops include lettuce, cabbage, broccoli, carrots, cauliflower, kale, kohlrabi, parsnips, radishes, rutabagas, spinach and turnips. Also round-seeded peas.

HARDY CROPS: When the daffodils and earliest tulips bloom, or when maple trees are in full flower, plant these: Beets, wrinkled peas, Swiss chard, and onion sets.

TENDER CROPS: When the Lilacs, Darwin Tulips and Apple Blossoms are in full bloom, plant these: Bush beans, sweet corn, pumpkins, and squash are included.

TROPICAL CROPS: When the petals on apple blossoms will have fallen and the tall late irises are in full bloom plant: Okra, Lima beans, Pole beans, muskmelons and cucumbers, and set out plants of tomatoes, peppers and eggplant. These can't stand frost and should not be planted until the weather is warm and settled.



SQUASH
Acorn



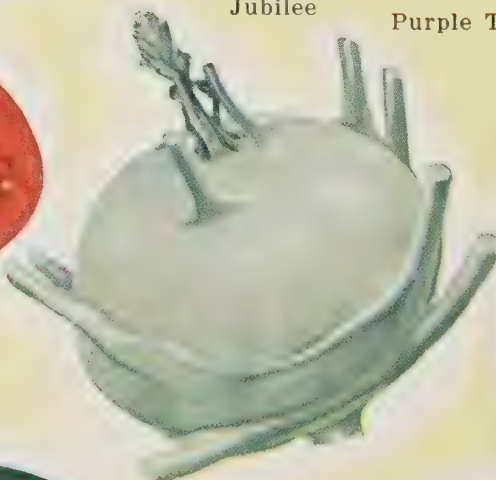
TOMATO
Jubilee



CABBAGE
Early Jersey Wakefield



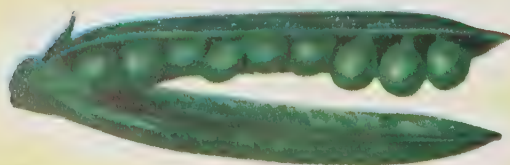
TOMATO
Rutgers



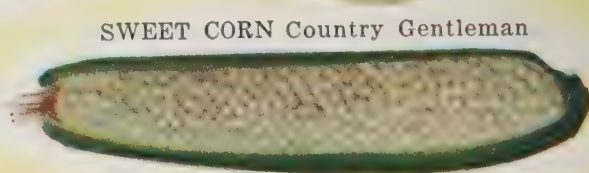
KOHLRABI
White Vienna



TURNIP
Purple Top White Globe



PEA Laxton's Progress



SWEET CORN Country Gentleman

SPINACH

Plant in very rich soil in rows spaced 14" to 18" apart. Keep plants thinned out from 3" to 6" apart in the row. (Seed may also be sown broadcast.) Sown in fall for winter use and spring for early use.

Bloomsdale Savoy, Long Standing (fr)

A few days later than regular Bloomsdale Savoy. Holds from 12 to 14 days longer. 42 days.

Giant Nobel or Giant Thick Leaf

Large, vigorous, spreading plant, slow to form seed stalks. Heavy yielder. Large, thick, smooth, deep green leaves. 45 days.

New Zealand—Thrives in dry hot weather. Can be picked repeatedly all season. Not a true spinach, but similar when cooked. 70 days.

SQUASH

Follow same planting and culture as for melons and cucumbers. Plant summer varieties 6 or 8 seeds in hill 3' to 4' apart each way and winter squash 8' apart. Plants bear longer if squash is picked off as soon as it is ready for use.

Summer Varieties

Early Prolific Straightneck (fr)—Earlier, smaller, and more productive than Giant Summer Straightneck, and more uniform. Brilliant yellow. Fine for home or market. 50 days.

Giant Summer Crookneck—Prolific, bush type plant, curved neck fruits around 4 to 5-lb., 20 to 24-in. long, 4 to 5-in. diameter. 56 days.

Mammoth White Bush Scallop—3½" long, 9" in diameter. Retain their white color at later stages. 56 days.

Zucchini—Straight, cylindrical fruits, 3 to 4-lb., 3 to 5-in. through, 10 to 14-in. long. Mottled and striped green-creamy-gray. Delicate flavored flesh. 60 days.

Fall and Winter Varieties

Butternut—Deep buff-colored, bottle-shaped fruits. Smooth, hard shell. Solid fine textured flesh, that is deep yellow, dry, sweet, with excellent flavor. 12-in. long, upper or neck section 3½-in. diameter. 85 days.

Golden Hubbard—An early, small variety. Fruits pointed at each end moderately warted. Dry, deep orange flesh of fine quality.

Improved Green Hubbard (fr)—Most widely grown of any winter squash.

Round, warted, dark green with thick yellow flesh. Weight 12 to 14 lbs. 100 days.

Table Queen or Des Moines or Acorn (fr)—Acorn-shaped, green, deeply furrowed flesh rich yellow, dry, mealy, delicious. Convenient size for baking and serving in halves. 100 days.

SWISS CHARD

(See Beets, Leaf)

TOMATOES

Do best in sandy, well pulverized loam. Sow seed in hotbed or indoors. When plants are about 2" high, set out 3" apart, in boxes or pots—later transplant into the garden. Or keep in flats until weather is warm and settled, and then set plants out directly into the garden. Water around the roots of the plants when setting them out if ground is dry. Cultivate frequently until plants shade the ground. Remove all but the two or three strongest branches. Study methods of staking and training vines and adopt the one best suited to your situation.

Beefsteak—Rich scarlet-red, extra large fruits, more or less ribbed. Juicy, solid, with rich sub-acid flavor. One of the best for home use. 90 days.

Bonny Best—Second early variety, valuable for canners. Medium-vine, not very hardy. Medium-sized, apple-shaped, solid fruits, bright scarlet. 73 days.

Earliana—Open, spreading, medium small vines. Red fruits run to medium size. Thick; smooth fruit. 66 days.

John Baer—Thick, scarlet (similar to Bonny Best). Smooth, firm, medium large fruit. 70 days.

Jubilee—Orange colored fruit. Juicy with few seeds. Weighs about 6 oz. Bears over a long season. 72 days.

Marglobe—Moderately productive, with heavy foliage. Vigorous and resistant to wilt and rust. Fruits medium large, nearly round, smooth, and solid. Deep red. 77 days.

Oxheart—Plant open, spreading. Moderately productive. Fruits large, roughly heart shaped, pink, meaty and of mild flavor. 90 days.

Ponderosa—One of the largest varieties. Spreading large vines. Solid, fine flavored, pink with small seed cells. Somewhat rough and flat. Have a tendency to crack. 88 days.

Pritchard's Scarlet Topper—Medium to large round, with thick, firm flesh and small seed cavities. Brilliant red throughout, coloring right to top, without hard green spots. Free from acidity, one of the best home canners. Early.

Rutgers—Second early variety. Large thick stems, vigorous foliage. Fruits similar to Marglobe but flatter at stem end. Bright red, with thick walls. Red, firm flesh, low acidity. 72 days.

Stokesdale—An extremely important development. Smooth 7-oz. fruit, brilliant color, exceedingly solid flesh and small seed cavities. Matures in the second-early group, a full week earlier than Marglobe.

Stone Improved—Medium late. Ripens evenly and is uniform. Fruits large, flattened but deep. Smooth, attractive, scarlet-red, of fine flavor. 86 days.

Valiant—Plant sparse and open. Fruits large for an early variety, globe shaped and of bright scarlet color. 70 days.

Small Fruited—Red and yellow varieties, shaped like miniature pears, plums, and cherries; excellent for preserves.

TURNIP

For summer greens or roots, sow as early as radishes and lettuce. Then cut when plants are 6" high. Sow again in summer for fall and winter use. Turnips do best when most of their growth is made in autumn or early spring. Should be grown rapidly for best flavor and texture.

Golden Ball or Orange Jelly—Medium size, deep yellow with bronze-green top. Creamy yellow flesh of fine texture. 65 days.

Purple Top White Globe (fr)—Large, sweet tops. Smooth, globe-shaped roots, purple-red above, white below. Sweet tender, crisp, white flesh. 50 to 60 days.

Purple-Top Strap Leaf—Home and market garden variety. Deep purplish-red on top, white below. Flesh white and never stringy.

Foliage Turnip

Seven Top or Winter Greens—For greens or foliage. Young shoots extremely tender. Roots tough, undesirable for food. 50 days.

Rutabaga or Swede Turnip

American Purpletop—Hardy and productive. Tender firm, light yellow, sweet flesh. 88 days.

2-4D ON FARM—INCREASES YIELDS, SAVES LABOR

Whether your crop is in grasses, grain or row crops there is a 2-4D solution that will conquer weeds and mean more money to you at harvest time.

When to Use 2-4D

PASTURE AND TURF—Should be sprayed early in the spring to control susceptible weeds. Dosages can be regulated so that White Dutch and Ladino Clovers will not be permanently affected. Legumes' loss however must be expected. It is generally considered more economical to treat pastures at least twice during the season than to treat once and allow later weeds to seed.

2-4D FOR SMALL GRAINS—Wheat, Oats, Barley and Rye may be sprayed at any time after tillering (stooling) is complete, except during the "boot" and blossom stages.

FIELD CORN is most resistant when less than 6" high or more than 3' high. Spraying should be done during these resistant periods if possible. **CAUTION**—treatment at other periods may cause temporary effects such as leaf curl and stem bending or permanent effects such as twisting of the brace roots. After spraying do not cultivate until brittleness disappears.



Starting in Coldframes, Hotbeds, or Indoors

The gains you can make by "beating the weather" are well worth going after, particularly on tomatoes, cabbage, peppers, cauliflower, broccoli, and kohlrabi.

But remember that a plant which hasn't been treated right in the flat will not be a good plant in the garden. A transplant that has had to struggle against over or underheating, too much water or too little, etc., will not do as well as a direct-seeded plant or a purchased transplant that has had expert attention.

However, the right conditions for a successful indoor start are not difficult to achieve. Any gardener can do the trick by applying a reasonable amount of care and attention.

Don't begin too soon, unless you have a greenhouse or light hotbed and can give the seedlings plenty of room. For most vegetables, 6 to 7 weeks is time enough to allow between seeding and transplanting.

Fill shallow boxes (flats) with a mixture of $\frac{1}{3}$ good garden soil, $\frac{1}{3}$ clean sand and $\frac{1}{3}$ compost, leaf mold or other well-rooted organic matter. Make very shallow rows or furrows with the edge of a ruler or a wood lath, 3" apart. Sow seeds in these rows 1" apart in the row.

DON'T let your soil dry out, and don't let it be soggy. Spray lightly two or three times a day, using an atomizer or bulb sprinkler. When the best seedlings can be selected, thin out to stand 2" to 3" apart. Before transplanting into the garden, withhold water for 2 or 3 days.

Transplanting

Tomato, eggplant, and pepper plants are tender and should not be set out before danger of frost is past. Cabbage, cauliflower, and kohlrabi are less tender but it is not safe to set them out much before the frost-proof date.

Where care is needed

Use care in transplanting or you will injure the tender plants.

When soil is sufficiently moist so a ball of soil can be retained around each individual root there is less chance of injury or of air pockets being left around roots. Use a trowel. (It is important that roots be kept in close contact with soil so they can get moisture.)

When seedlings are to be transplanted without a ball of soil, long tap roots should be shortened, and the whole root system placed and "firmed in" so that it is well spread out, not bunched. Soil in which roots are placed must be finely pulverized.

When roots have been carefully placed in position, firm the soil around each plant enough to insure that roots are in contact with the soil, and that there are no air pockets.

Transplant in cool, cloudy weather or at evening or early morning.

As soon as the garden has been planted, water thoroughly but gently with a fine spray. This, by the way, is the only time we **sprinkle** a garden; once the plants are established, any watering should give the soil a good soaking.

Watering

Soak, don't sprinkle. Your garden needs water when the leaves look wilted in the sun and do not recover freshness over night.

Except for transplants, try to avoid watering the garden until it really needs water.

Don't wash away topsoil

When you do water, soak, don't sprinkle. Do a thorough job. The hose or sprinkler should be allowed to run on one spot until water stands on the surface.

The best way to do a thorough soaking job is to use a canvas hose that leaks all along its length, placed along a row at a time. Let the water run until the soil is saturated to a good depth. Then move hose to next row.

If an overhead sprinkler is used be sure it doesn't have too much force, or it will wash the soil away.

If you have only an ordinary hose (without holes), remove nozzle and place a small board under the end of the hose to distribute water gently.

Water in the evening or early morning.

After watering, the soil should be moist to a depth of five to six inches. Check this with a spade to be sure.

A Program for Garden Sanitation

About 75% of the work and much of the damage caused by insects can be eliminated by a simple, regular program of sanitation. Preventive dusting or spraying is much easier than waging a losing battle against bugs when they appear. Usually, less than 30 minutes a week should be needed for a regular sanitation program for both flowers and vegetables.

CANTALOUPE
Rocky Ford

CORN, Golden
Cross Bantam

Hearts of Gold

CARROTS,
Imperator

CUCUMBER
Long Green

LETTUCE, Oak Leaf

COS LETTUCE, White Paris

Cultivation and Weeding

Frequent, shallow cultivation or hoeing is best. It requires less effort and gives better results. Never let the weeds get a start. They rob the plants of food and moisture.

Cultivate after each rain or soaking, as soon as soil is dry enough, and as often between as necessary to keep weeds under control.

1. "Destroy them young" should be the first principle in controlling weeds. Weeds rob the soil of moisture and food. Worst of all, if allowed to grow, they shade the crops that require six hours of full sunshine to grow normally. Plan to spend half an hour a day hoeing weeds and the average garden can be kept up without difficulty.

2. Keep the soil from caking or cracking because when rain comes, it cannot penetrate the hard surface and may run off and be lost. A prong cultivator will leave the surface loose and ready to absorb rain.

3. Air is vital to plant growth: stir the soil as soon as the ground is dry enough after a rain or after watering. This also saves moisture. Use the hoe and save the hose.

4. When cultivating stay as far away from the plants as you can to avoid packing the soil around the roots.

Harvesting

The big advantage the home gardener has over the commercial grower is that he can pick his vegetables one minute and have them in the kitchen the next. All vegetables are better if left on the plant until ready to serve. Sweet corn in particular loses sweetness every minute it is off the stalk. Pick only what vegetables you can use right away and not until you are ready to use them.

Most vegetables, particularly summer squash, sweet corn, cucumbers, carrots, beets, peas and string beans, should be used much younger than usually harvested by the commercial growers. Learn the "feel" of an ear of corn that is ready to pick. The tip of the ear will feel full and the silks should be turning brown.

Muskmelons do **not** get sweeter after picking. For full flavor leave them on the vine until a crack appears all around the point of attachment between the stem and melon. The free end should feel definitely soft when the melon is ready.

Avoid harvesting beans while the plants are wet with dew or rain, as moisture spreads disease.

Cover crops--after vegetables --to improve your soil

Save and improve your soil and plant food supply by growing cover crops. After a row of vegetables has been harvested (if you aren't planting a succession crop in this spot) sow some quick-growing plant that will take up any excess fertilizers and store them in its tissues. Plow under that plant just before the next crop goes in, and decay will release that plant food just in time to do the most good. Also, the rotting vegetable matter produces humus, without which good crops cannot be grown. Ask us for advice on covercrops for the garden.

Ask us also how to control root maggots that harm cabbage, Brussels sprouts, onions, radishes, and turnips--also how to guard against the carrot rust fly.

For insecticides always see the seedsman!

These Vegetables STORE Well

Beets, Carrots, Turnips, Winter Radishes—Do not wash. Pack in loose moist sand or fine moist soil. Store in unheated cellar, or in ventilated room away from heat.

Cabbage—Roughly trim heads, cut off roots. Store in temperature of 40 to 60°, with high humidity or cover heads with moist soil or sand.

Celery, Kale, Chinese Cabbage, Endive, Leeks—Store in trenches outdoors or in boxes of soil in basement. Outdoors must be covered with straw to prevent freezing.

Squash, Pumpkins—Harvest as they mature, leaving 3 or 4" of stem. Cure for a few days at 80 to 85°. Store in dry place.

Peas, Beans—May be picked off plants or the whole plant pulled and placed in dry airy place to cure. After thoroughly dried, shell, clean, sort and store in jars or cans in cool, dry, dark place.

Onions—Pull as soon as most of the tops fall over. Place in racks or spread out on dry wooden floors—or hang in dry airy place. Store in dry well-ventilated place at a temperature just above freezing.

Parsnips, Salsify, Horseradish—Not injured by freezing, and may be left in the garden, or stored in moist soil or sand in cool building.

Potatoes—Should be kept in slatted bins for ventilation and left uncovered. Protect from strong light. Keep longer at 36 to 40°, but cook better if stored at higher temperature.

Sweet Potatoes—Dig as they mature or after first killing frost. Sort them as dug, and place in crates. Cure for two weeks at 80 to 85°F. before storing. Best storage temperature 50 to 55°.

ENDIVE, Green Curled

ONION SETS

SQUASH,
White Bush Scallop

RADISH,
Lilly's Comet

OKRA, Early Dwarf

BUSH BEANS,
Tendergreen

PEPPER,
Long Red Cayenne

PEAS,
Tall Telephone



DEPENDABLE FARM SEEDS

ALFALFA—The No. 1 soil builder and restorer. We carry a full range of varieties, adapted to this territory.

MILLET—An excellent food for stock and poultry. Also a good green fodder and hay plant. Chokes out weeds.

RAPE, DWARF ESSEX—Highly recommended for pasture for sheep, cattle and hogs. Makes splendid green feed for poultry. Plant early spring in moist soil.

SORGHUMS—An excellent soiling crop furnishing succulent feed for milch cows. A large yielding fodder crop. A good range of varieties.

SOY BEANS—The crop of many purposes. Excellent for hay, ensilage, grain, and soil improvement. Ground soy beans are as good or better than Oil Meal for mixing with grains for dairy ration.

VETCH—A great producer for hay, pasturage or silage. Good cover crop and soil builder. Needs only moderate moisture, grows in almost any soil.

CLOVERS

Alsike—Very hardy. Does better on moist land than other varieties of Clover. Suitable for hay or pasture. Good bee plant.

Medium Red or June—The most valuable of the clover family. Makes two

crops the second year. Does not exhaust the soil but enriches it.

Mammoth Red—Also called "Pea Vine" Clover. Grows large and coarse, often used for plowing under to enrich soil.

White Dutch—A very hardy creeping clover, adapts itself to great variety of soils and climates. Good pasture for sheep or cattle; fine for bees.

White Sweet (Biennial)—Excellent for pasture, hay and a soil improver. Drought-resistant.

GRASSES

Alta Fescue — New all-purpose, all-location grass. Highest yielding grass for pasture-hay-silage. Grows on wet or dry, acid or alkali soil. Takes a year to establish but lasts 20 years or more.

Brome Grass—Drought defying, resistant to frost and extreme heat alike. Very early, and stays green late in fall. Produces abundant pasturage and enormous crops of high grade hay.

Kentucky Blue Grass—Excellent for pasture for all kinds of stock. Very hardy. Roots form tough sod. Requires two years to get well started, so often sown in mixtures with other grasses.

Orchard Grass—Hardy, quick-growing. Gives large yield of excellent hay. May be cut several times during season. Will grow in shady places.

Reed Canary Grass—Especially suited to swampy, over-flowed lands; but thrives on uplands where moisture is abundant. Makes splendid pasture, very early; lasts to late fall.

Red Top—Valuable for most soils. A good permanent grass. It should be grazed close. Grows successfully on alkali lands where other grasses fail.

Rye Grass, Domestic—Fast growing one-year grass. Yields abundantly and matures all in one season. Helpful as a nurse crop to other grasses.

Rye Grass, Perennial—A good pasture grass. Grows quickly and withstands drought reasonably well.

Sudan Grass—The ideal emergency hay and pasture crop for late planting. Never plant until ground is warm.

Timothy—Unsurpassed as a crop for hay. Relished by all kinds of stock, especially horses. Not suitable for permanent pasture. Should not be cut too early or pastured too late in fall.

Field and Grass Seed Per Acre And Bushel Weight

	Lbs. per	
	Bu.	Acres
Alfalfa	60	15 to 20
Barley	48	96
Brome Grass	14	15 to 20
Buckwheat	50	50
Clover, Alsike	60	8 to 10
Clover, Medium Red ..	60	10 to 12
Clover, Mammoth Red ..	60	8 to 12
Clover, Sweet	60	12 to 15
Clover, White	60	5 to 8
Cow Peas, broadcast ..	60	60 to 90
Flax, broadcast	56	25 to 30
Grass, Kentucky Blue ..	14	20 to 30
Grass, Orchard	14	22
Kaffir Corn, broadcast ..	56	40 to 50
Millet, for hay	50	50
Millet, for seed	50	30
Oats	32	64 to 96
Rape, broadcast	50	6 to 8
Reed's Canary Grass ..	32	4 to 6
Rye, broadcast	56	56 to 84
Sorghum, for fodder ..	50	50 to 60
Soy Beans, broadcast ..	60	30 to 45
Soy Beans, in drills ..	60	60 to 90
Sudan Grass, broadcast ..	40	20 to 25
Sudan Grass, in drills ..	40	8 to 10
Timothy	45	10 to 12
Vetches, broadcast ..	60	50 to 60
Wheat	60	90

Ask for our latest
COMPLETE LIST
of varieties and prices
including many not listed
here.

SEED POTATOES

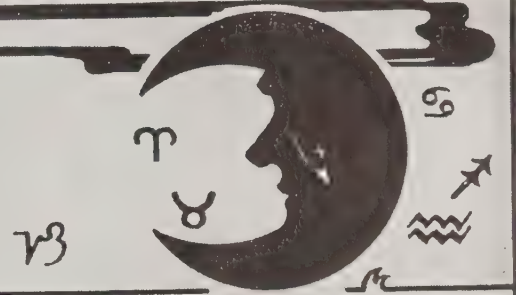
Our certified stocks are the most economical you can plant, they reduce your hazards, give you bigger production and fewer culls. They are true to name . . . grown especially for seed stock . . . more highly disease resistant . . . tagged for origin.

SEED CORN

More and more, the problem of choosing seed corn is becoming a local problem. It's of prime importance to have the varieties that best fit your own growing conditions.

Our selection of seed corn is built on intimate knowledge of this district—and conscientious application of that knowledge. So you are always in good hands when you buy seed corn here.

PLANTING BY THE MOON



1950 Moon Phases and Positions

Many gardeners like to govern their planting by the phases of the moon. For them, we show here all the necessary information generally shown by more voluminous arrangements. As seedsmen,

we cannot vouch for the effectiveness of this method, but we are glad to provide this complete and up-to-date chart for those who want it.

Signs of the Zodiac and Their Influence

♈ **ARIES:** Tends to dryness, barrenness. Fairly good for cultivating, spraying and weeding.

♉ **TAURUS:** Fairly productive. A good sign for planting root crops particularly potatoes and bulbous plants.

♊ **GEMINI:** Dry and barren. Not good for any kind of planting or transplanting. Kill noxious growths.

♋ **CANCER:** Moist, very fruitful, most productive of the Zodiac. Planting and transplanting should yield good crops. Irrigate, bud, graft, transplant.

♌ **LEO:** Most dry and barren sign. Use only to kill weeds, destroy roots, etc.

♍ **VIRGO:** Moist but barren. Not recommended for planting or transplanting; good for cultivating and destroying.

♎ **LIBRA:** Fairly fruitful. Seed for hay, corn, fodder, etc. Produces vigorous pulp growth, reasonable amount of grain. Good for flowers.

♏ **SCORPIO:** Next to Cancer in productivity. Irrigate but do not dig potatoes.

♐ **SAGITTARIUS:** Generally considered barren but used by many for onions, seeding for hay, destroying weeds, etc.

♑ **CAPRICORN:** Earthly, fairly productive. Similar to Taurus but drier. Bulbous flowers, potatoes, tubers, root crops.

♒ **AQUARIUS:** Somewhat barren. Good only for cultivation and extermination of pests.

♓ **PISCES:** Similar to Cancer so use for same purposes. Very productive. Do not dig potatoes.

When to Plant

The tables at right show when the moon enters each sign of the Zodiac. It also shows the moon's changes.

Under each month, we show first the time at which the moon enters each SIGN (day of the month and hour of the day, Central Standard Time). Then we show the moon CHANGES (day and hour) for each month.

ALL

● **1st QUARTER MOON, INCREASING**
—During 1st Quarter of Moon plant the following: Asparagus, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Celery, Corn, Cucumbers, Endive, Kohlrabi, Leeks, Lettuce, Spinach, Barley, Oats, Rye, Wheat.

♪ **2nd QUARTER, MOON INCREASING**
—During 2nd Quarter of Moon plant the following: Beans, Egg Plant, Melons, Peas, Peppers, Pumpkins, Squash, Tomatoes, flowers, and cereals.

When possible, plant seed while the Moon is in the fruitful signs of Cancer,

Scorpio or Pisces. The next best signs are Taurus, Libra and Capricorn.

☾ **3rd QUARTER, MOON DECREASING**
—During 3rd Quarter of Moon plant the following: Beets, Carrots, Chicory, Parsnips, Potatoes, Radishes, Rutabagas, Onions, Turnips, Tubers.

☾ **4th QUARTER, MOON DECREASING**
—In 4th or Last Quarter of the Moon turn sod, pull weeds, and destroy noxious growths, especially when Moon is in barren signs, Gemini, Leo, Virgo or Aquarius.

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
1 ♀ .0:00a 3 ☾ .0:53a 5 ♀ .7:55a 7 ♀ .1:05p 9 ☾ .5:08p 11 ♀ .8:28p 13 ♀ .11:16p 16 ♀ .2:08a 18 ☾ .6:10a 20 ♀ .0:44p 22 ♀ .10:39p 25 ♀ .11:09a 27 ♀ .11:40p 30 ☾ .9:46a	1 ♀ .4:32p 3 ♀ .8:36p 5 ☾ .11:20p 8 ♀ .1:51a 10 ♀ .4:53p 12 ♀ .8:47p 14 ☾ .2:00p 16 ♀ .9:13p 19 ♀ .7:04a 21 ♀ .7:11p 24 ♀ .8:01a 26 ☾ .7:02p	1 ♀ .2:25a 3 ♀ .6:21a 5 ☾ .7:59a 7 ♀ .8:57p 9 ♀ .10:40a 11 ♀ .2:09p 13 ☾ .7:53p 16 ♀ .4:03a 18 ♀ .2:21p 21 ♀ .2:33a 23 ♀ .3:28p 26 ☾ .3:13a 28 ♀ .00:00p 30 ♀ .4:59p	1 ☾ .6:40p 3 ♀ .6:35p 5 ♀ .6:38p 7 ♀ .8:30p 10 ☾ .1:28a 12 ♀ .9:41a 14 ♀ .8:32p 17 ♀ .9:00a 19 ♀ .9:54p 22 ☾ .9:59a 24 ♀ .7:55p 27 ♀ .2:25a 29 ☾ .5:21a	1 ♀ .5:35a 3 ♀ .4:52a 5 ♀ .5:13a 7 ☾ .8:28a 9 ♀ .3:35p 12 ♀ .2:19a 14 ♀ .2:59p 17 ♀ .3:51a 19 ☾ .3:49p 22 ♀ .2:04a 24 ♀ .9:47a 26 ☾ .2:24p 28 ♀ .4:00p 30 ♀ .3:42p	1 ♀ .3:28p 3 ☾ .5:18p 5 ♀ .11:00p 8 ♀ .8:48a 10 ♀ .9:20p 13 ♀ .10:04a 15 ☾ .9:44p 18 ♀ .7:35a 20 ♀ .3:31p 22 ☾ .9:07p 25 ♀ .0:17a 27 ♀ .1:25a 29 ♀ .1:50a
Changes ☾ .4 .1:48a ☾ 11 .4:31a ● 18 .2:00a ♪ 25 .10:39p	Changes ☾ 2 .4:16p ☾ 9 .0:32p ● 16 .4:53p ♪ 24 .7:52p	Changes ☾ 4 .4:34a ☾ 10 .8:38p ● 18 .9:20a ♪ 26 .2:09p	Changes ☾ 2 .2:49p ☾ 9 .5:42a ● 17 .2:25a ♪ 25 .4:40a	Changes ☾ 1 .11:19p ☾ 8 .4:32p ● 16 .6:54p ♪ 24 .3:28p ☾ 31 .6:43a	Changes ☾ 7 .5:35a ● 15 .9:53a ♪ 22 .11:12p ☾ 29 .1:58p
JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1 ☾ .3:19a 3 ♀ .6:04a 5 ♀ .4:24a 8 ♀ .4:13a 10 ♀ .5:02p 13 ☾ .4:34a 15 ♀ .1:52p 17 ♀ .9:06p 20 ☾ .2:33a 22 ♀ .6:27a 24 ♀ .8:46a 26 ♀ .10:39a 28 ♀ .0:56p 30 ♀ .5:19p	2 .1:02a 4 .0:07p 7 .0:44a 9 .0:26p 11 .9:35p 14 .4:02a 16 .8:31a 18 .11:48p 20 .2:35p 22 .5:22p 24 .8:54p 27 .2:02a 29 .9:46a 31 .8:19p	3 ♀ .8:46a 5 ☾ .8:54p 8 ♀ .6:34a 10 ♀ .0:54p 12 ☾ .4:26p 14 ♀ .6:27p 16 ♀ .8:12p 18 ♀ .10:49p 21 ☾ .3:00a 23 ♀ .9:10a 25 ♀ .5:31p 28 ♀ .4:09a 30 ♀ .4:26p	3 ☾ .4:57a 5 ♀ .3:38p 7 ♀ .10:53p 10 ☾ .2:29a 12 ♀ .3:30a 14 ♀ .3:44a 16 ♀ .4:55a 18 ☾ .8:27a 20 ♀ .2:52p 22 ♀ .11:59p 25 ♀ .11:03p 27 ♀ .11:21p 30 ☾ .0:06p	1 ♀ .11:37p 4 ♀ .8:20a 6 ☾ .1:12p 8 ♀ .2:26p 10 ♀ .1:49p 12 ♀ .1:27p 14 ☾ .3:16p 16 ♀ .8:38p 19 ♀ .5:37a 21 ♀ .5:08p 24 ♀ .5:37a 26 ☾ .6:12p 29 ♀ .6:02a	1 ♀ .3:53p 3 ☾ .10:28p 6 ♀ .1:19a 8 ♀ .1:16a 10 ♀ .0:15a 12 ☾ .0:35a 14 ♀ .4:10a 16 ♀ .0:01p 18 ♀ .11:10p 21 ♀ .11:50p 24 ☾ .0:47a 26 ♀ .11:45p 28 ♀ .9:40p 31 ☾ .5:20a
Changes ☾ 6 .8:53p ● 14 11:05p ♪ 22 4:50a ☾ 28 10:17p	Changes 5 ☾ .1:56p 13 ☾ 10:48a 20 ♀ .9:35a 27 ☾ 8:51a	Changes 4 ☾ .7:53a 11 ☾ .9:29p 18 ♀ .2:54p 25 ☾ 10:21p	Changes 4 ☾ .1:53a 11 ☾ .7:33a 17 ♀ .10:18p 25 ☾ .2:46p	Changes 2 ☾ .7:00p 9 ☾ .5:25p 16 ♀ .9:06a 24 ☾ .9:14a	Changes 2 ☾ .10:22a 9 ☾ .3:28a 15 ♀ .11:56p 24 ☾ .4:23a

VEGETABLE GARDEN PLANTING GUIDE

Seed
Required
for 50 ft.
of row

Distance
Between
Rows
(inches)

Distance
Apart
In Row
(inches)

Depth
to
Plant
(inches)

Approx.
Yield
Per 50 ft.
of row

ARTICHOKE	1/8 oz.	48	48	1/4	
ASPARAGUS	1/2 oz.	24	20	1/2	25 lbs.
BEANS, BUSH	1/2 lb.	24	4	1 1/2	20 qts.
BEANS, LIMA	1/2 lb.	24	3	1	32 qts.
BEANS, POLE	1/2 lb.	36	8	1 1/2	30 qts.
BEANS, POLE LIMA	1/2 lb.	48	8	1 1/2	1 1/4 bu.
BEETS, TABLE	1/2 oz.	24	3	1/2	1 1/4 bu.
BEETS, MANGEL	1/2 oz.	28	4	1	
BROCCOLI	1/8 oz.	24	24	1/2	25 head
BRUSSELS SPROUTS	1/8 oz.	24	18	1/2	15 qts.
CABBAGE	1/4 oz.	24	12-24	1/2	35 head
CHINESE CABBAGE	1/2 oz.	24	12	1/2	40 head
CARROTS	1/4 oz.	16	3	1/2	24 qts.
CAULIFLOWER	1/4 oz.	24	20	1/2	25 head
CELERY	1/8 oz.	24	6	1/4	100 stalk
COLLARDS	1/4 oz.	30	18	1/2	3 bu.
CORN, SWEET	4 oz.	36	9	1	100 ear
CORN, POP	3 oz.	34	8	1	
CUCUMBER	1/2 oz.	48	36	1/2	100 fruit
DILL	1/4 oz.	18	4	1/2	
EGG PLANT	1/8 oz.	36	24	1/2	75 fruit
ENDIVE	1/2 oz.	18	12	1/2	50 fruit
KALE	1/2 oz.	32	22	1/2	50 plant
KOHLRABI	1/4 oz.	24	6	1/2	1 bu.

Seed
Required
for 50 ft.
of row

Distance
Between
Rows
(inches)

Distance
Apart
In Row
(inches)

Depth
to
Plant
(inches)

Approx.
Yield
Per 50 ft.
of row

LETTUCE	1/4 oz.	18	12	1/4	50 head
MUSKMELON	1/2 oz.	60	48	3/4	50 fruit
MUSTARD	1/4 oz.	24	9	1/2	1 bu.
OKRA	1 oz.	36	15	1	450 pods
ONION	1/4 oz.	18	4	3/4	1 bu.
ONION SETS	1 pt.	12	2	1	60 bun.
PARSLEY	1/4 oz.	12	6	1/2	45 bun.
PARSNIPS	1/2 oz.	18	4	1/2	1 bu.
PEAS	3/4 lb.	24	2	1	1 bu.
PEPPERS	1/8 oz.	30	20	1/2	300 fruit
PUMPKIN	2 oz.	96	60	3/4	25 fruit
RADISH	1/2 oz.	12	2	1/2	50 bun.
RHUBARB	1/2 oz.	48	48		100 stem
RUTABAGA	1/8 oz.	24	6	1/2	1 bu.
SALSIFY	1/2 oz.	18	2	1/2	300 roots
SPINACH	3/4 oz.	18	5	3/4	1 1/2 bu.
SPINACH, N.Z.	1/2 oz.	36	18	1	50 lbs.
SQUASH, BUSH	1/4 oz.	48	48	1	60 fruit
SQUASH, WINTER	1/4 oz.	72	72	1	35 fruit
SWISS CHARD	1/2 oz.	18	15	1	25 lbs.
TOMATO	1/8 oz.	40	36	1/2	2 bu.
TURNIP (roots)	1/4 oz.	18	4	1/4	1 bu.
TURNIP (greens)	1/2 oz.	12	4	1/4	1 1/2 bu.
WATERMELON	1/2 oz.	96	96	3/4	20 fruit

PEAS, Little Marvel (Top)
Early Thos. Laxton (Bottom)

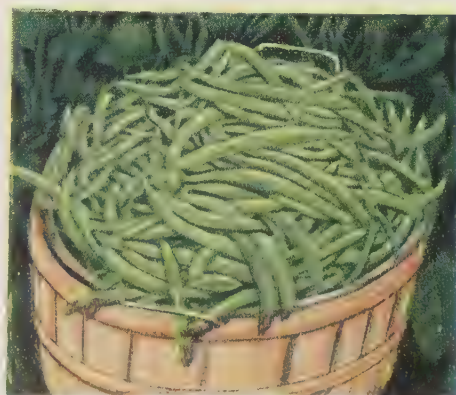
BEANS, Improved Golden Wax

BEETS, Crosby's Improved Egyptian



BEANS, Fordhook Bush Lima

BEANS, Plentiful



EGG PLANT
Black Beauty



BEATING THESE INSECTS IS EASY WITH KNOW-HOW

Ever since the first garden was planted, the fight between gardeners and insects has gone merrily along.

But nowadays that fight is growing easier, year by year. Just reasonably good strategy is all the gardener needs to win.

To make the job even easier, we present here a highly valuable anti-bug weapon. This is our series of natural color portraits of the common garden enemies (at the right).

To Beat Them, KNOW THEM!

These unique pictures have just one purpose—to help you identify the pests in your own garden.

Once you know exactly which insect you are fighting, the job is easy. There's a proper insecticide for every one of them.

That's where our color pictures are so extremely useful. When you have these life-like portraits before you, identification is easier and more certain than ever!

Ask Us for the Remedy!

Insects are spread over the season and in different stages of life from the egg, the larva to the bug itself. Their methods of attack vary in two ways either as chewers or suckers. The wide variety of harmful insects in their varied stages of life require in some cases vastly different chemicals to meet the immediate requirements.

To link up each bug with the insecticide that will handle him, JUST ASK US. We keep very close watch on all new developments. We know exactly which of the new formulas have proved themselves . . . and what they can do. This practical knowledge is at your service, whenever you need it!

So—with this weapon at hand, let's work together. You identify 'em! We'll prescribe for 'em! And from then on, Mr. Bug will have a pretty bad time of it.

For Insecticides SEE THE SEEDSMAN!

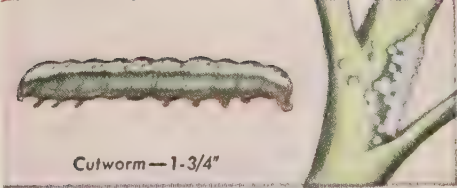
You can buy insecticides in many types of stores.

But there's only one type of store where the necessary KNOW-HOW goes along with the merchandise.

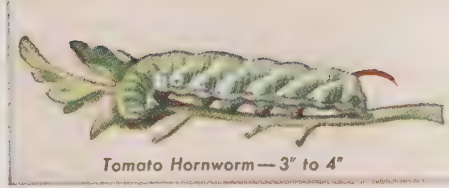
A good seedsman isn't only a merchant. He's a garden doctor, always on the job to help you make your home more beautiful, more fruitful. He KNOWS!

Therefore, plain common sense says,

**"FOR INSECTICIDES
SEE THE SEEDSMAN!"**



Cutworm—1-3/4"



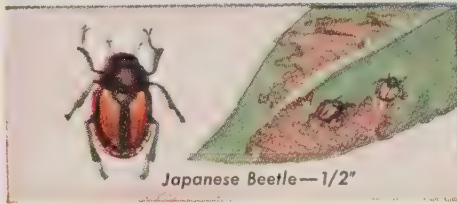
Tomato Hornworm—3" to 4"



Cabbage Worm—1"



Giant Slug—4" or more



Japanese Beetle—1/2"



Mexican Bean Beetle—5/16"

PORTRAIT GALLERY OF GARDEN INSECTS



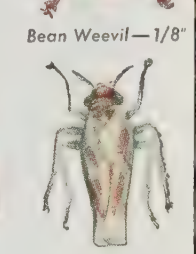
Asparagus Beetle—7/32"



Potato Beetle—3/8"



Potato Flea Beetle—1/16"



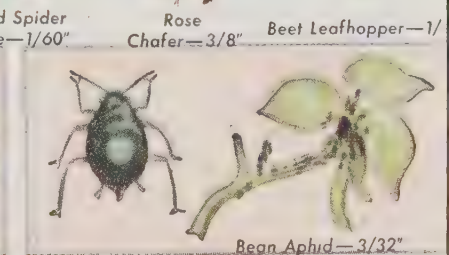
Bean Weevil—1/8"



Chinch Bug—3/16"



Tarnished Plant Bug—1/4"



Red Spider Mite—1/60"



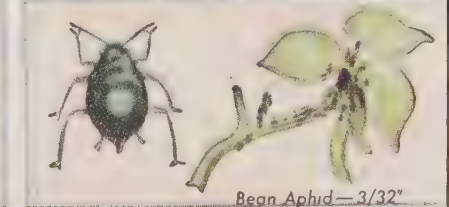
Rose Chafer—3/8"



Beet Leafhopper—1/2"



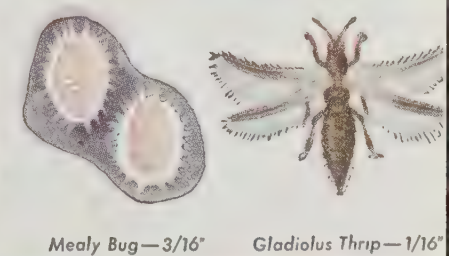
Melon Aphid—3/32"



Bean Aphid—3/32"



Squash Bug—5/8"



Sow Bug—1/2"



Mealy Bug—3/16"

Gladiolus Thrip—1/16"



San Jose Scale



Corn Earworm—2"

Oyster-shell Scale



McMAHON'S SEEDS FOR HAY AND FOR PASTURE

ALFALFA

Our alfalfa seed, listed below, is all northern grown. It was grown in Western South Dakota, Wyoming, and Montana. This is the hardiest seed available. Free samples may be had upon request.

McMahon's pure grades of alfalfa is free from dodder and other noxious weeds and shriveled seeds, leaving you only big plump seeds ready to grow.

LADAK—The parent material of this variety was introduced in 1910 from Northern India where it had developed for many generations under conditions of low winter temperatures and low annual rainfall. It ranks first in hay yield throughout the sub-humid areas of that state; first in cold and drought resistance; and is moderately resistant to bacterial wilt.

RANGER—Is a new variety developed by the Nebraska Agricultural Experiment Station and the U. S. Department of Agriculture by combining several superior strains. It is wilt resistant, winter hardy and adapted for South Dakota conditions. Seed of this new variety is being multiplied and is becoming increasingly available.

COSSACK—The original seed of Siberian origin was introduced into the United States in 1907. Cossack is a very vigorous growing variety, only slightly less hardy than Grimm but more resistant to bacterial wilt. For the greater portion of the more favorable alfalfa-producing areas of the Dakotas it may be expected to be second to Ladak in forage production.

GRIMM—The original seed was brought from Germany in 1857 by Wendelin Grimm who settled in Minnesota. It yields well and is winter hardy. Not wilt resistant.

McMAHON'S PASTURE MIXTURE

This is a carefully blended mixture for grazing by all livestock. It contains the following in suitable proportions:

Western Wheatgrass, Sweet Clover, Crested Wheat Grass, Alsike Clover, Brome Grass, Rye Grass, and Alfalfa seed.

DAKOTA NO. 12—This is alfalfa from long established stands which has proven superior by test, and which has survived the extremes in climate during the past 20 or more years.

GRASSES

If you have special conditions or problems to meet in planting grass, telephone us, write us, or come in to see us, and we will help you to get just the varieties that do best under those conditions. Listed below are some of the grasses we have found most suitable for the general growing conditions in this area.

CRESTED WHEAT GRASS—This is a very hardy perennial bunched grass. It is relished by all kinds of livestock, both as pasture and as hay. It will stand extreme cold or drought and demands much sunshine.

INTERMEDIATE WHEAT GRASS—This is the variety often called Ree grass. It has a very high resistance to drought and stays green in the heat of summer, even when Crested is dry.

WESTERN WHEAT GRASS—This is similar to Crested but is not so high in yield and resistance to drought.

BROME GRASS—A hardy, smooth, erect, drought-resisting perennial grass. Forms an excellent sod for pasturage. Resistant to extreme cold and heat. A fine upland grass.

RYE GRASS (DOMESTIC)—Very quick growing and hardy, producing a large amount of nutritious herbage. Will withstand heavy pasturing.

TIMOTHY—One of the most universally known and cultivated grasses especially adapted to cool, moist soils. It is a standard grass for hay in all parts of the country. The seed is usually high in germination, making it inexpensive to plant.

TIMOTHY AND ALSIKE—This is an 80-20 mixture to combine the qualities of timothy with the hardy character and high yield of Alsike Clover.

McMAHON'S

1950
SEED
ANNUAL

Our 54th Year

FIELD & GARDEN SEEDS



MODERN SEED CLEANING & SEED TREATING PLANT,
ELEVATOR, WAREHOUSE & OFFICE AT RAPID CITY

— IT PAYS TO PLANT QUALITY SEED —

MAKE ARRANGEMENTS NOW TO HAVE YOUR SEED CLEANED OVER OUR
SPECIAL SEED CLEANING AND TREATING EQUIPMENT

McMahon Company, Inc.

Rapid City, S. Dak.

Sturgis, S. Dak.

LAWN GRASS

Sow 5 lbs. per 1,000 square feet.

Postage Prepaid

TOP LAWN MIX

A combination of the finest quality seeds—a mixture which we have developed after years of experience. All of the grasses in it are fine bladed and deep rooting. There just isn't a better combination than this for the lawns of this territory.

1 lb. \$1.00	5 lbs. \$4.90	10 lbs. \$9.50
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WESTERN LAWN MIX

Made up of fine grades of Kentucky Blue Grass, Rye Grass, Red Top Grass, and White Dutch Clover. Makes a very desirable lawn.

1 lb. \$.80	5 lbs. \$3.90	10 lbs. \$7.50
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KENTUCKY BLUE GRASS

The most desirable grass for a beautiful lawn. The leaves are narrow and deep green in color. It forms a close turf, is slightly creeping and quite hardy. Maintains its green color until late in fall. It is recommended alone or in mixtures for lawn purposes.

1 lb. \$.95	5 lbs. \$4.65	10 lbs. \$9.00
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RED TOP

A fast growing grass that is highly adapted to a wide variety of soils, and conditions. Ideal for use in mixtures.

1 lb. \$.90	5 lbs. \$4.40	10 lbs. \$8.50
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RYE GRASS

An excellent "nurse" grass where a quick growth is wanted. Not long lasting. Good in moist soils.

1 lb. \$.30	5 lbs. \$1.40	10 lbs. \$2.50
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HIGHLAND BENT GRASS

It is fine leaved, bright green in color, and creeps both below and above the ground. The hardest of all Bent grasses. For lawns and golf courses, etc.

1 lb. \$1.25	5 lbs. \$6.15	10 lbs. \$12.00
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SHADY NOOK MIX

Best to use in shade under trees and north of buildings. Will also do good in the sun.

1 lb. \$1.10	5 lbs. \$5.40	10 lbs. \$10.50
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POA TRIVIALIS

Especially for shady places where it is difficult to get a satisfactory lawn. Requires frequent watering.

1 lb. \$1.20	5 lbs. \$5.90	10 lbs. \$11.50
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WHITE DUTCH CLOVER

This is a small, close growing, dwarf clover used extensively in making lawns. It is a rapid grower with spreading habits, and can be cut very close to ground without injury to the plant. Excellent in mixtures.

1 lb. \$1.25	5 lbs. \$6.15	10 lbs. \$12.00
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FAIRWAY STRAIN, CRESTED WHEATGRASS

This is shorter, has finer and more leaves than the regular strain. The dry land lawn grass. Can be used to fine advantage in lawns, fairways, school yards, parks, and farm lawns. Sow one pound to 100 square feet.

1 lb. \$.60	5 lbs. \$2.75	10 lbs. \$5.00
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This much **VIGORO**
(4 lbs. per 100 sq. ft.)
MAKES THIS
MUCH DIFFERENCE!

THE MASTER GARDENER



VIGORO-FED

UNFED

The earlier you feed your lawn Vigoro, the more good it will get from the application. Vigoro—complete, balanced plant food—provides in ample amounts all the essential plant nutrients growing things must get from the soil.

Make your lawn the neighborhood beauty spot with Vigoro. Get Vigoro and feed it right away.

* Vigoro is the trade-mark for Swift & Company's complete, balanced plant food.



GET YOUR
VIGORO TODAY!

VIGORO
PRICES

100 lb. Bag	\$5.00
25 lb. Bag	1.75
10 lb. Pkg	.90
5 lb. Pkg.	.50
1 lb. Pkg.	.15
Tablets	.10

LAWN and GARDEN SUPPLIES



Complete, balanced plant food builds sturdy plants. Soluble, it assures immediate availability of growth-producing elements. Will not burn. Clean and odorless. Produces superior plants, vegetables, lawns, trees. Excellent for seedlings, cuttings and transplants. Use indoors or outdoors in soil, sand or water (Hydroponics). 1 oz. makes 6 gallons.

1 oz. pkg. 10c 7 oz. can 50c
3 oz. can 25c 1 lb. can \$1.00

WEEDUST

TRADE MARK

2,4-D in powder form. Kill those here-and-there weeds in your lawn with Weedust. Just shake a pinch from the can directly on the weed.

Large size can \$.75



10 oz. applicator gun \$.98
10 oz. applicator refill .75
4 oz. sifter top can .35
2 lb. pour spout can 1.00

KILL Crab Grass

WITHOUT DESTROYING *Lawn Grass*

ZOTOX



... A remarkable liquid chemical kills the plant and seeds of Crab Grass and checks propagation. Does not destroy lawn grasses and is not injurious to soil. A 16-oz. bottle makes 10 gallons and covers 2,000 sq. ft. or more. Also kills Chickweed, Dandelion, Plantain and certain other lawn weeds. Proved by 6 years of success. (Note: Do not compare Zotox with 2, 4-D which leading experts agree will not kill Crab Grass.) Prices: 8-oz. bottle \$1.00; 16-oz. \$1.50; 32-oz. \$2.50; 5 lbs. \$4.50. Sold by Seed, Hdw. and Dept. Stores. Mfd. by GARDEN PRODUCTS CO., ST. LOUIS 2, MO.

FRUITONE

REG. U. S. PAT. OFF.

Fruitone stops premature drop of apples, peaches, pears, and plums. Helps produce bigger, earlier crops. Fruitone produces seedless tomatoes.

Trial size 25c 2 oz. size \$1.00

TRANSPLANTONE

Reg. U. S. Pat. Off.

Transplantone reduces shock and wilt when seedlings and plants are moved. Stimulates root growth so that fewer seedlings die and more come to early, healthy maturity. Transplantone encourages growth and bloom.

One-half oz. size 25c 3 oz. size \$1.00

ROOTONE

Reg. U. S. Pat. Off.

Rootone stimulates the natural tendency of seeds, cuttings, and bulbs to put out roots. Rooting is faster and heavier, resulting is bigger, earlier plants.

Trial size 25c 2 oz. size \$1.00

ROSETONE

The roots of a dormant rose plant are inactive. Rosetone helps start those roots growing actively and producing feeder roots essential for the life and growth of the plant. Treated plants produce more luxuriant growth and earlier blooms than untreated plants.

3 oz. can \$1.00

DORMATONE

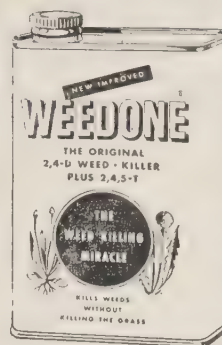
Dormatone prevents spoilage of potatoes, beets, carrots, turnips, rutabagas and other root crops. When potatoes are sprinkled with Dormatone, they will not sprout or shrivel, thus there is no loss of weight and they have a better texture.

12 oz. sifter top can \$1.00



THE highly absorbent, weed-free, odorless, organic soil conditioner. Lightens heavy clay. Holds moisture and plant food near roots in sandy soils. Gives all soils a more loam-like texture. Grows stronger roots that develop lovelier plants. Excellent, too, for mulching and transplanting.

PREMIER PEAT MOSS



Spray your lawn with Weedone. Grass is not affected but weed curl, dry-up and die.

Safe for people and pets.

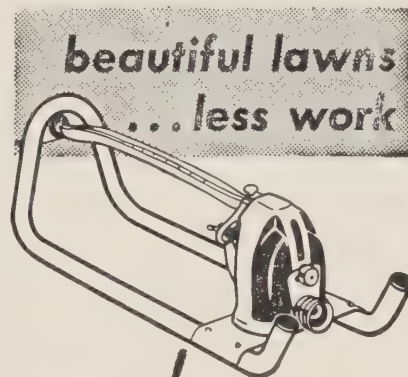
Trial size \$.75
Quart 2.50
Gallon 6.50
Larger sizes on request.



PURINA GARDEN DUST

Kills most garden and flower pests.

1 lb. canister \$.60



beautiful lawns
... less work
New!
LAWN SPRINKLER
WATERS LARGE AREA
Now! Order your
METCO Wave Sprinkler
only \$16.95

HORTICULTURAL PEAT MOSS

Small Bale \$3.25
Large Bale \$4.50

GARDEN SEEDS

Garden seeds are all quoted POSTAGE PAID, and shipments will be made the same day your order is received. All our garden seeds are selected and grown under climatic conditions suited to this climate and will give excellent results under average conditions if planted early.

All Garden Seeds available
in 10c packets
Add 3% Sales Tax
Garden Seed Orders

QUALITY SEEDS PRODUCE QUALITY VEGETABLES

BEANS

	$\frac{1}{4}$ lb.	1 lb.	3 lb.
Improved Golden Wax	.25	.45	1.20
Pencil Pod Blk. Wax	.25	.45	1.20
Plentiful (Greenpod)	.25	.45	1.20
Burpee's Stringless	.25	.40	1.10
Kentucky Wonder	.25	.45	1.20
Henderson Bush Lima	.25	.40	1.10
Navy Beans	.12	.25	.75

BEETS

	Oz.	$\frac{1}{4}$ lb.	$\frac{1}{2}$ lb.
Early Blood Turnip	.15	.45	.75
Crosby's Egyptian	.15	.45	.75
Detroit Dark Red	.15	.45	.75
Swiss Chard Silver	.15	.45	.75
Golden Tankard Stock	.10	.40	.65

BRUSSELS SPROUTS

	Pkg.	Oz.
Dwarf Improved	.10	.60

CUCUMBERS

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Everbearing	.20	.55	1.80
Chicago Pickling	.20	.55	1.80
Imp. Long Green	.20	.60	2.00
Early White Spine	.20	.55	1.80
Straight 8	.20	.60	2.00

CABBAGE

	Oz.	$\frac{1}{4}$ lb.
Golden Acre	.25	.75
Copenhagen Market	.25	.75
Ferry's Hollander	.25	.75
Late Flat Dutch	.25	.75

CAULIFLOWER

	Oz.
Snowdrift	1.00

CARROTS

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Chantenay	.15	.50	1.70
Danvers Half Long	.15	.50	1.70
Ox Heart	.15	.50	1.70
Nantes Coreless	.15	.50	1.70

SWEET CORN

	$\frac{1}{4}$ lb.	1 lb.	5 lb.
Golden Hummer	.18	.30	1.20
Golden Bantam	.18	.30	1.20
Golden Sunshine	.18	.30	1.20
Golden Midget	.30	.50	2.25
Tendergold Hybrid	.30	.50	2.25
Golden Bantam Hybrid	.30	.50	2.25
Midgolden Hybrid	.30	.50	2.25

HERBS

	Oz.	$\frac{1}{4}$ lb.
Dill	.15	.40

LETTUCE

	Oz.	$\frac{1}{4}$ lb.
Blk. Seeded Simpson	.15	.50
Prizehead	.15	.50
New York 515 (Head)	.35	1.05

MUSKMELEON

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Honey Dew	.15	.50	1.70
Rockyford (Green)	.15	.50	1.70
Milwaukee Market	.15	.50	1.70
Hales Best	.15	.50	1.70
Honey Rock	.15	.50	1.70

ONION SETS

	1 lb.	5 lb.
White Onion Sets	.20	.90
Yellow Onion Sets	.20	.90

ONIONS

	Oz.	$\frac{1}{4}$ lb.
So. Port Red Globe	.40	1.20
So. Port White Globe	.50	1.35
Yellow Globe	.40	1.30
Yellow Sweet, Spanish	.50	1.65

BERMUDA ONIONS

	100 Plants	500 Plants	1000 Plants
	.20	.90	1.75

NASTURTIUMS

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Sweet Peas			
Tall Mixed			
Nasturtiums	.20	.60	
Spencer Giant			
Sweet Peas	.20	.60	2.00

PEAS

	$\frac{1}{4}$ lb.	1 lb.	3 lb.
American Wonder	.20	.35	.90
Little Marvel	.20	.35	.90
Everbearing	.20	.35	.90
Laxtonian	.20	.35	.90
Alaska	.20	.30	.80
Dwarf Telephone	.20	.35	.90
Dwarf Grey Sugar	.20	.35	.90

PARSNIPS

	Oz.	$\frac{1}{4}$ lb.
Hollow Crown	.15	.40

PEPPERS

	Oz.	$\frac{1}{4}$ lb.
Oakview Wonder	.50	1.50

PUMPKINS

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Connecticut Field	.15	.45	1.30
Sugar Pie	.15	.45	1.30

RUTABAGAS

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Imp. Am. Pur. Top	.10	.35	1.00

RADISHES

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Early Scarlet Globe	.10	.35	.90
French Breakfast	.10	.35	.90
Crimson Giant	.10	.35	.90
White Icicle	.10	.35	.90
Wh. Tip Sc. Turnip	.10	.35	.90
Rose Winterlong	.10	.35	.90

SPINACH

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Bloomsdale	.10	.20	.60
King of Denmark	.10	.20	.60

SQUASH

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Warty Hubbard	.20	.60	1.30
Table Queen	.15	.50	1.60
Yl. Sum Cr'kneck	.15	.50	1.60

TOMATOES

	Oz.	$\frac{1}{4}$ lb.
Ground Cherry	.40	.70
John Baer	.30	.50
Earliana	.40	.70
Victor	.40	.70
Marglobe	.30	.50
Sioux	.40	.70

TURNIPS

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Purple White Globe	.10	.30	.80
White Egg	.10	.30	.80

WATERMELONS

	Oz.	$\frac{1}{4}$ lb.	1 lb.
Dixie Queen	.20	.65	2.00
Coles Early	.15	.45	1.30
Kleckley's Sweet	.15	.45	1.30
Stone Mountain	.15	.45	1.30
Early Kansas	.15	.50	1.30
Black Diamond	.20	.60	1.60



FIELD SEEDS

All seeds are tested and tagged in compliance with State seed laws.

NOTICE—Prices include bags and are subject to market changes.

ALFALFA

Our Alfalfa seed, listed below, is all Northern grown. It was grown in Western South Dakota, Wyoming and Montana. This is the hardest seed available. Free samples upon request.

SPECIAL

Dak. 12 Seed (98% Pure) \$46.50 cwt.

DAKOTA No. 12

This is alfalfa from long established stands which has proven to be superior, and which has survived the extremes in climate during the past 20 years or more.

	1 lb.	100 lbs.
Dak. 12 (99% Pure)	\$.55	\$52.00

GRIMM

This variety is one of the earliest and best known of the pedigreed varieties. It has proven its ability to withstand drouth and winter-killing.

	1 lb.	100 lbs.
Dakota grown (99% Pure)	\$.57	\$54.00

COSSACK

This is a very vigorous growing variety, that is second to Ladak in hay production. Cossack produces a fine stemmed hay.

	1 lb.	100 lbs.
Dakota Grown (99% Pure)	\$.57	\$54.00
Certified Blue Tag (BuSax)		\$62.00

LADAK

The parent material of this variety was introduced in 1910 from Northern India where it had developed for many generations under conditions of low winter temperatures and low annual rainfall. Ladak ranks first in hay yield and first in cold and drought resistance, and is resistant to bacterial wilt.

	1 lb.	100 lbs.
Dakota Grown (99% Pure)	\$.63	\$58.00

RANGER

Ranger is a new variety developed by the U. S. Dept. of Agriculture by combining several superior strains. It is wilt resistant, winter hardy and adapted to our Western climatic conditions.

	1 lb.	100 lbs.
Dakota Grown (99% Pure)	\$.65	\$60.00
Certified Blue Tag		\$92.00

— CLOVER —

WHITE BLOSSOM SWEET CLOVER This is the standard Sweet Clover of the country. It is a biennial, grows from 4 to 6 feet tall, vigorous grower, extremely hardy and produces abundant hay and pasture.

99% Pure	1 lb.	\$.32	100 lbs.	\$27.00
98% Pure	1 lb.	\$.30	100 lbs.	\$25.00

YELLOW BLOSSOM SWEET CLOVER A biennial that is not as tall as the White but is about two weeks earlier. It is very drought resistant and desirable for hay, pasture and forage. Not to be confused with the annual Yellow Blossom which is of very little value.

99% Pure	1 lb.	\$.31	100 lbs.	\$26.00
98% Pure	1 lb.	\$.29	100 lbs.	\$24.00

ALSIKE CLOVER This is a valuable forage crop sown alone or with timothy. Excellent at high altitudes where alfalfa kills out.

99% Pure	1 lb.	\$.50	100 lbs.	\$45.00
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GRASSES

LINCOLN BROME GRASS A perennial with strong creeping rootstalks producing a dense sod. It is an excellent pasture and hay grass that begins growth early in the spring and grows throughout the summer, continuing growth until late fall.

1 lb.	\$.60	100 lbs.	\$55.00
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STANDARD CRESTED WHEATGRASS A hardy, drought resistant perennial bunch grass. It is very early in spring growth but during hot dry spells it becomes dormant and resumes growth with cooler weather and more favorable moisture conditions. It makes an excellent early summer and late fall pasture and is especially adapted to the Western area.

1 lb.	\$.42	100 lbs.	\$37.50
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FAIRWAY CRESTED WHEATGRASS Very similar to Standard Crested but Fairway is shorter, leafier, and finer-stemmed. Used extensively in Farm lawns, Parks, Fairways, and other places where watering facilities are not available. Sow 1 lb. to 100 sq. ft.

1 lb.	\$.60	100 lbs.	\$45.00
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WESTERN WHEATGRASS Also very similar to Standard Crested but is usually a little taller, and produces more hay and seed per acre, but does not provide as much pasture. A perennial that is very drought resistant, but slower growing.

1 lb.	\$.50	100 lbs.	\$45.00
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RYE GRASS (DOMESTIC) A very quick growing grass that produces a large amount of nutritious foliage, but not as hardy as the Wheatgrasses.

1 lb.	\$.25	100 lbs.	\$20.00
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TIMOTHY & ALSIKE An 80-20 mixture.

1 lb.	\$.45	100 lbs.	\$40.00
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PASTURE MIX A carefully blended pasture mix for grazing by all livestock. It contains Brome Grass, Western Wheatgrass, Crested Wheatgrass, Rye Grass, Alfalfa, Sweet Clover, Red Clover, and Alsike Clover.

1 lb.	\$.45	100 lbs.	\$39.50
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NOTICE

The 1950 Agricultural Conservation Program for South Dakota calls for payments for the establishment of additional acreage of perennial grasses and/or biennial and perennial legumes. The payment rates are as follows:

(a) Seeding Alfalfa or Alsike clover \$.40 lb.

(b) Seeding Brome Grass \$.30 lb.

(c) Seeding Wheatgrasses \$.25 lb.

(d) Seeding pasture mixtures of other adapted perennial legumes and grasses \$.25 lb.

See your county committee for full details.

FIELD CROP SEEDS

All seeds are tested and tagged in compliance with State seed laws.
NOTICE—PRICES INCLUDE BAGS AND ARE SUBJECT TO MARKET CHANGES

— WHEAT —

NEW RUSHMORE WHEAT a beardless variety developed at the S. Dak. Experiment Station from the cross between Rival and Thatcher. It is stem rust resistant, as early as Thatcher and has yielded as well as Rival, Pilot and Mida. It is rust resistant and less likely to shatter than Rival or Mida.

Ask for Prices

PILOT WHEAT bearded, rust resistant, non-shattering variety. It is an excellent yielder.

\$2.55 per bu 15 bu. or more @ \$2.45

THATCHER WHEAT beardless variety that is both stem and leaf rust resistant.

\$2.50 per bushel 15 bushels or more @ \$2.40

DURUM WHEAT planted in larger quantities each year. Producers claim that it is the surest crop of wheat that can be raised.

\$2.50 per bushel 15 bushels or more @ \$2.40

MIDA WHEAT bearded, spring variety that is high-yielding with high test weight. Resistant to bunt, stem rust and most leaf rusts. Has less tendency towards shattering and bleaching than Rival.

\$2.55 per bushel 15 bushels or more @ \$2.45

— OATS —



TROJAN OATS a very early white oat. Has a greater strength of straw than Brunner. It is susceptible to leaf rust but is resistant to stem rust and smut. Adapted to same area as Brunner.

\$1.40 per bushel 15 bushel or more @ \$1.30

VIKOTA OATS medium early, yellow variety with a good strength of straw and resistant to most rusts and smuts. Well adapted to Central and Western S. Dak.

\$1.50 per bushel 15 bushel or more @ \$1.40

BENTON OATS a sister selection of Clinton, and very similar to it in plant type and disease resistance. Somewhat taller and has stiff straw.

\$1.50 per bushel 15 bushel or more @ \$1.40

CLINTON OATS resistant to stem and leaf rust. Resistant to blight and root-rot disease. Has a stiff straw therefore, is a good oats for combining. A higher yielder, kernels are plump and more valuable for feeding.

\$1.40 per bushel 15 bushel or more @ \$1.30

GOPHER OATS an early white variety that is always a good yielder.

\$1.30 per bushel 15 bushels or more @ \$1.20



— BARLEY —

VELVET BARLEY a smooth-awned six-rowed barley. It is slightly earlier than Wisconsin 38 and has a stiffer straw. Malt-ing type barley.

\$1.90 per bu. 15 bu. or more @ \$1.80

FEEBAR BARLEY a new early maturing, strong straw, drought resistant, high-protein, feed type barley. This variety has produced good yields. A six-row barley.

\$2.05 per bu. 15 bu. or more @ \$1.95

PLAINS BARLEY an early, six-rowed, smooth-awned, stiff-strawed, stem rust resistant variety that is very well suited to conditions of Central and Western South Dakota.

\$2.25 per bushel 15 bushels or more @ \$2.15

SPARTAN BARLEY a two-rowed, smooth-awned, stiff strawed feed barley. It is very early with a high test weight and high protein content.

\$1.70 per bushel 15 bushels or more @ \$1.60

WISCONSIN No. 38 a smooth-awned, six-rowed, high-yielding malting type barley.

\$1.70 per bushel 15 bushels or more @ \$1.60

L or KINDRED BARLEY a rough-awned, six-rowed, barley of high matting qualities.

\$1.80 per bushel 15 bushels or more @ \$1.70

— FLAX —

KOTO FLAX the most widely adapted of all flax varieties. It is resistant to wilt and to some races of rust. This variety has an excellent plant type and competes more successfully with weeds than other varieties of flax.

Per bushel \$5.75

ARROW FLAX has recently been released by the State of Montana. Rust resistant with a high yielding ability.

Per bushel \$5.25

SHEYENNE FLAX early maturing, wilt and rust resistant. It produces high quality oil and is adapted for areas where early maturing is essential.

Per bushel \$5.75

REDWING FLAX a medium early, medium tall flax. It is resistant to wilt.

Per bushel \$4.75

BISON FLAX

Per bushel \$4.75

— RYE —

FALL RYE

\$1.65 per bushel 15 bushels or more @ \$1.55

SPELTZ

Price per bushel \$2.50

DU PONT SEED DISINFECTANTS

CERESAN M to control smut and other seed-borne diseases on wheat, oats, barley, flax and sorghum seeds. 1 lb. treats 32 bu. of grain.

14 oz. \$1.00 3 lbs. \$2.85 40 lbs. \$28.75

SEMESAN JR. for seed corn. Helps protect seed against rotting in the soil, checks forms of blight and root-rot. Improves the germination.

1 1/2 oz. \$.17 12 oz. \$.62

SEMESAN REL used to treat seed potatoes for dry rot and scab.

2 oz. \$.50 1 lb. \$2.00



SEED CORN

NOTICE—Prices include bags and are subject to market changes.



REGISTERED BRANDS SEED CORN

REGISTERED BRANDS EARLY HYBRID, Wisc. 335
This Hybrid is earlier and yields better than flint corms. It is a reddish colored corn similar to the old Northwestern Dent. An excellent variety for areas where seasons are short, matures in 85 to 90 days.
\$8.75 per bushel 5 bushels @ \$8.25 per bushel

REGISTERED BRANDS HYBRID, Wisc. 355
This is the old reliable 85 to 90 day Hybrid that has been grown so successfully in this part of the country the past few years. It has proven to be adapted to a wide variety of soils. The medium length ears are well filled with deep yellow kernels.
\$8.75 per bushel 5 bushels @ \$8.25 per bushel

OPEN POLLINATED CORN

Black Hills SPECIAL Yellow Dent	Per Bu.	\$4.50
Black Hills Yellow Dent	\$4.00
Paynes White Dent	\$4.50
Falconer Dent	\$4.50
Rainbow Flint	\$4.50
Blue Squaw	\$4.50
Squaw Corn	\$4.50
Gehu Flint	\$5.00

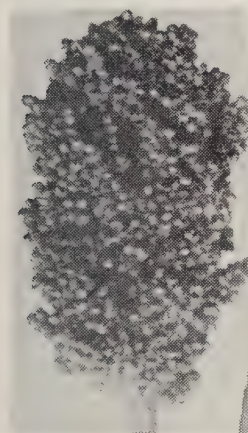
KINGSCROST HYBRIDS

KINGSCROST KF-1 a semi-dent hybrid crossed between flint and dent. This 80 day corn combines the best features of both and has proven itself very well adapted to the needs of the far northern farmer.
\$11.25 per bushel 5 bushels @ 10.75 per bushel

KINGSCROST KE-3 this is the earliest Kingscrot pure yellow dent Hybrid in the 80 day class. Farmers who use their early corn for dual purposes can get the maximum of fodder and grain from KE-3.
\$11.25 per bushel 5 bushels @ 10.75 per bushel

KINGSCROST KE-2 this 85 day Hybrid is a quick starter in the Spring and rapid ripener in the Fall. It is also a pure yellow dent Hybrid. It has an exceptionally tall plant growth and high ear placement for a corn of such early maturity.
\$11.25 per bushel 5 bushels @ 10.75 per bushel

KINGSCROST KE-1 this 90 day Hybrid features large dark green plants with ears that ripen ahead of the rest of the plant. This pure dent variety is a great favorite with those who use mechanical pickers because of it's high ear placement.
\$11.25 per bushel 5 bushels @ 10.75 per bushel



— SORGHUMS —

"Grain Sorghums"

CERTIFIED BLUE TAG
SORGHUM an extra early, high yielding, drought resistant, new variety of grain sorghum released from the S. Dak. Experiment Station in 1949. It is a combine type which grows from 36 to 46 inches tall. As a feed for livestock, it is almost equal to corn in the amount of nutritive value it supplies, 100 lbs. of Sorghum being equal to 95 lbs. of corn.
1 lb. \$.25 100 lbs. \$20.00

MARTINS COMBINE MILO a combine type which grows 30 to 40 inches tall. About the same maturity as Early Kalo but is more lodge resistant.
1 lb. \$.07 100 lbs. \$5.50

"Forage Sorghums"

CERTIFIED BLUE TAG RANCHER CANE It is juicy sweet and a high yielder of both forage and grain. Lowest in acid content. It is later, taller and leafier than the Low-acid Black Amber cane.
1 lb. \$.12 100 lbs. \$9.75

CANE, Elack Amber Low Acid	1 lb.	100 lbs.
CANE, Orange	\$.08	\$ 6.00
KAFFIR, Sweet Stalk	.08	6.00
RAPE, Dwarf Essex	.07	5.50
SUNFLOWER, Giants	.25	21.00
	.40	



— MILLETS —

EARLY FORTUNE (Red Proso) a very early grain millet that matures in 60 to 70 days.

1 lb. \$.08 100 lbs. @ \$5.00

WHITE PROSO a hardy and disease resistant strain.

1 lb. \$.08 100 lbs. @ \$5.00

SIBERIAN a hardy, drought resistant variety that matures in 65 to 70 days. It is noted for its large yields.

The forage is quite palatable, and the seed has a high feeding value.
1 lb. \$.09 100 lbs. @ \$6.00

— SUDAN GRASSES —

SWEET SUDAN GRASS a newer variety that has a high sugar content. It is leafier, higher yielding, more disease resistant, and more vigorous in growth than common sudan.

1 lb. \$.15 100 lbs. @ \$11.50

SUDAN GRASS (Colo. & S. Dak. grown) an excellent forage crop grown for both hay and pasture. Will produce several cuttings.

1 lb. \$.14 100 lbs. @ \$9.50

WARRANTY McMahon Company warrants to the extent of the purchase price that seeds sold are as described on the container within recognized tolerances. They give no other or further warranty, express or implied,

The RIGHT CHICK

*Start Chicks
that Pay...*



*the
Checkerboard
Way*

IS MIGHTY IMPORTANT TO YOUR POULTRY PROFITS

From the chicks you start now must come all the eggs and profits you get next winter and spring. You can't be too cautious in selecting chicks you **KNOW** have the stamina to live right, grow right, and lay right. You'll be pleased to know that we are extra careful to see that our chicks are bred to live and lay. The flocks from which they come are carefully inspected for health and high production.

for Chicks you can depend on... SEE US TODAY

1950 Prices on Straight-Run, Day-Old Chicks

Breed	AAAA Grade
Lge. Eng. Wht. Leghorns	\$14.50
Austra Whites	15.00
White Rocks	15.00
White Wyandottes	15.00
New Hampshire Reds	15.00
Rhode Island Reds	15.00
Hamp-Whites	15.00
Hamp-Legs	15.00

TERMS: \$2.00 down per 100 chicks when ordered, balance upon arrival. On orders for less than 100 day-old chicks, add one cent per chick. Prices are subject to change without notice. We guarantee 100% live delivery. Prices on sexed chicks will be furnished upon request. Special Broiler or Fryer Breeds. Over 96% livability—that's the average of the reports received back from last years satisfied chick customers.



**PURINA
CHEK-R-TABS**
Put in
chick
water to
kill germs.

50 Tablets	Ea. \$.50
150 Tablets	Ea. \$1.00
600 Tablets	Ea. \$3.00

Feed **PURINA STARTENA**

FOR

- ✓ **HIGH LIVABILITY**
- ✓ **FAST FEATHERING**
- ✓ **RAPID GROWTH**

Goodchicks and Purina Chick Startena can't be beat. Takes only 2 lbs. per chick.



Purina Research tests showed that chicks grew 12% faster on the amazing new **STARTENA CHECKER-ETTS** than on last year's Startena mash. Two big reasons for this faster growth are: 1 - The new Checker-ett form; 2 - The new stepped-up growth formula. These crushed checkers are easy to pour, less waste, and the Chicks like the cracked grain size better. Be sure to order Purina Chick Startena Checker-etts with your chicks.



CHICK FOUNTS

- many sizes
- well built
- last long



PURINA CHICK FEEDER

- saves feed
- all metal
- well built

PREMIER LITTER Absorbs Quicker

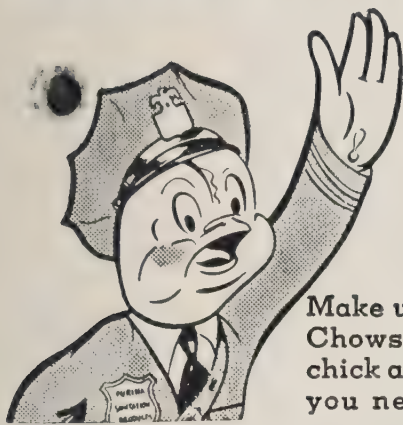


Premier's greater absorbency is the reason why it is a better litter in every way:

- 1 bale absorbs 2000 pounds of manure
- Lasts for months - saves money
- Requires fewer changes - saves labor
- Stays springy - encourages exercise
- Provides better insulation
- More bulk - greater coverage per dollar

Let us supply you now with Premier Litter -- the litter that will help you produce *healthier* poultry at a *saving* in labor and costs.

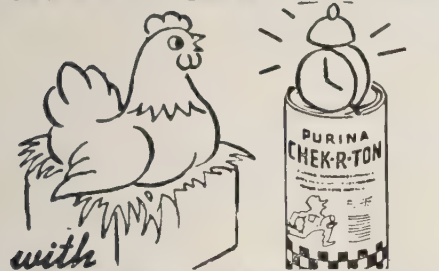
Large Bale	\$4.50
Small Bale	\$3.25



ONE STOP STORE for Chick SUPPLIES

Make us your headquarters for Purina Chows, Sanitation Products and other chick and poultry supplies...everything you need to grow vigorous chicks.

WAKE UP SLEEPY LAYERS



with
PURINA CHEK-R-TON
Helps get sluggish birds to eat the feed needed to get 'em back in condition. When birds are "off feed" remember Chek-R-Ton.

1 lb. Bag	\$.50
3 lb. Bag	1.45
6 lb. Bag	2.75

PURINA INSECT OIL

Use once a year in poultry houses, hog farrowing houses, dairy barns, etc.

**KILLS GERMS & MITES
PRESERVES WOOD**

One Gallon \$2.35

PURINA PIGTAB GRANULES

Let hogs worm themselves. Simply mix the pigtabs with the feed and be rid of large round worms.
10 dose can \$.75



**For HENS with COLDS
... PURINA CHLORENA
and DUST GUNS**
Dust Chlorena on the birds.

1 pound bottle \$.65

DISINFECTANT

A germ killing disinfectant and deodorizer for poultry houses, brooders, drinking fountains, feeders, refrigerators, food lockers, toilets, garbage pails, etc.

Pint bottle \$.75

PURINA ROOST PAINT

The easy way to kill lice on your chickens is to draw a thin line of Purina Roost Paint on top of each roost pole. Rising fumes penetrate the feathers to kill the lice. One pint will treat 500 feet of perches.

8 oz. bottle \$.85
Pint bottle 1.35

RAT AND MOUSE POISONS

Cowleys:

A liquid rat and mouse posion

6 oz. bottle \$.50

Sweeney's Poison Wheat

1 1/2 oz. box \$.20
3 1/2 oz. box .35

MORTON'S SALT SPECIALTIES

SUGAR CURE

Gives that rich smoked flavor to your ham and bacon as it cures.

7 1/2 pound package \$.70

TENDER-QUICK

Cures fast and brings out the full richness of the natural flavors in oil type of meat.

4 pound package \$.90

MEAT PUMP

Use Morton's meat pump to place Tender-Quick around the joints and bones of hams, beef, lamb, or game.
Meat Pump \$2.10

MEAT SEASONING

An appetizing, all-purpose meat and poultry seasoning which gives food a new delicious flavor.

3 oz. package \$1.15

SAUSAGE SEASONING

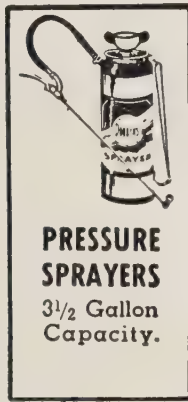
Gives your sausage a greatness and zest of tantalizing flavor.

10 oz. package \$.35



HAND SPRAYER

Several
sizes.
Built
strong.

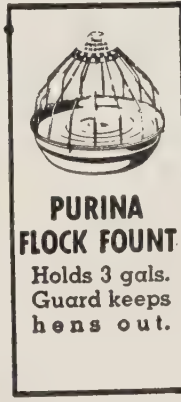


PRESSURE SPRAYERS

3 1/2 Gallon
Capacity.



PURINA FLOCK FEEDERS



PURINA FLOCK FOUNT

Holds 3 gals.
Guard keeps
hens out.

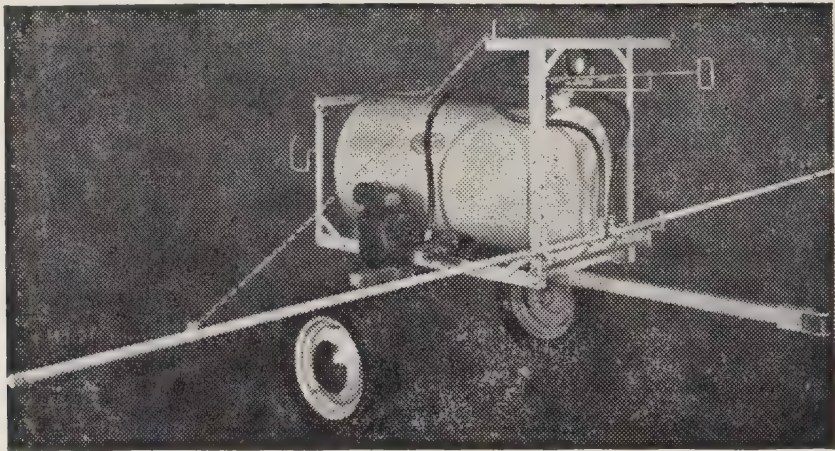
SPRAYERS and DUSTERS

4 oz. all-purpose household sprayer with glass container	\$.26
10 oz. intermittent-type household sprayer	.36
1 quart intermittent-type household sprayer	.45
Dobbins Superbuilt duster	1.60
3 half-gallon dobbins pressure tank sprayer	9.60
Pampeco double action, trombone-type sprayer	6.50

FEEDERS and WATERERS

Chowder hopper and guard (hanging feeder)	
25 pound capacity	\$3.10
12 pound capacity	2.25
24 inch all metal chick feeder	.35
48 inch all metal growing feeder	1.55
3 gallon poultry waterer	2.65
Glass chick founts	.10
Electric automatic water warmers	4.00
Brooder thermometer	.55

KROMER TRAILER SPRAYERS



TRAILER SPRAYERS

	Boom	Tank	Tread	Clearance	Weight	
T413-50	13-ft. one piece	50 gal.	64 in.	24 in.	225 lbs.	\$266.00
T620-125	20-ft. folding	125 gal.	72 in.	26 in.	550 lbs.	398.00
T826-125	26-ft. folding	125 gal.	72 in.	26 in.	575 lbs.	410.00
T1032-125	32-ft. folding	125 gal.	72 in.	26 in.	600 lbs.	422.00
T620-200	20-ft. folding	200 gal.	80 in.	26 in.	625 lbs.	428.00
T826-200	26-ft. folding	200 gal.	80 in.	26 in.	650 lbs.	440.00
T1032-200	32-ft. folding	200 gal.	80 in.	26 in.	675 lbs.	452.00

Write or come in and ask for prices on models with mechanical agitation or power take off pumps.

WEEDONE CONCENTRATE 48

Weedone 48 is an ethyl ester formulation containing 3 pounds of 2, 4-D acid equivalent per gallon. It has proved more effective than salt formulations in treating perennial weeds and annuals in late stages of growth, during dry weather, and under other adverse conditions. It sticks rain or shine. Can be mixed with any amount of water for high or low volume application. Requires lower amounts of acid per acre for equal results.

1 gallon	\$ 5.00
5 gallon	23.70
54 gallon	238.68

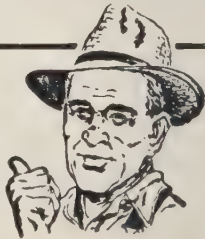
WEEDAR 64

Weedar 48 is an amine salt formulation containing 4 pound of 2, 4-D acid equivalent per gallon. It is completely soluble in water and will not clog nozzles. Particularly useful for treating weeds in crops near susceptible plants and for treating small annual weeds that are growing actively. Easier on crops than ester formulations. Will not injure adjoining crops except in case of drift.

1 gallon	\$ 5.17
5 gallon	24.65
54 gallon	249.48

WEEDONE Brush Killer 32

(contains the powerful 2,4,5-T and 2,4-D)



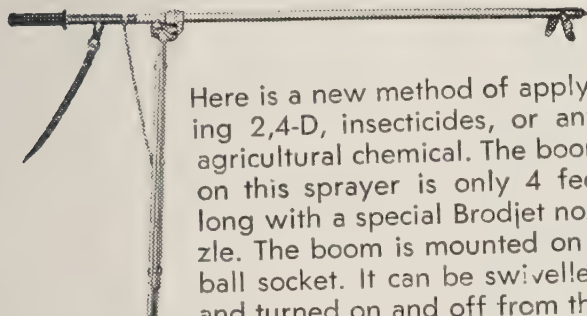
Spray Now

Here is the solution to killing those hard to kill woody plants such as brambles, poison ivy, poison oak, willows, buckbrush, and many others. It is a butoxy ethanediol ester formulation which means there is no vapor injury to near by susceptible plants.

Mix one gallon to 100 gallons of water.

Quart	\$4.00
Gallon	8.75

THE NEW BRODJET SPRAYER



Here is a new method of applying 2,4-D, insecticides, or any agricultural chemical. The boom on this sprayer is only 4 feet long with a special Brodjet nozzle. The boom is mounted on a ball socket. It can be swivelled and turned on and off from the tractor or truck seat. It is capable of from 10 to 40 foot swathes. This sprayer can be installed and detached in a few minutes and can be operated from 3 to 20 miles per hour. Even with this sprayer mounted, your tractor can be used for other jobs as there is no cumbersome boom to interfere. No more worries about going thru fence gates or clearing obstacles.

Hanson Sprayer "A" Brodjet Boom \$99.50

This sprayer will give from 10 to 20 feet swathes. The pump is designed for direct installation to power take off shaft without belts or pulleys. Pump delivers 160 lbs. pressure.

Brodjet Boom

(Two way spray) - add to list \$23.00

This boom makes a more versatile sprayer. By mounting in front or rear and pointing orifices in opposite directions, the size of the swath is doubled and the gallons per acre remain the same. Gallons per acre may be doubled by pointing both orifices in the same direction. Sprays from 10 to 34 foot swath.

GHP Gear Pump add to list \$40.00

This pump will give up to 400 lbs. pressure instead of 160 pounds of the standard "A" sprayer.

COLORADO 44 WEED KILLER

WHY WORK?

When Colorado .44 Weed Killers keep weeds from growing?



Weeds disappear like magic when you spray them with modern, scientific Colorado .44 2,4-D weed killer. It is so much easier to let this weed killer do the work for you! Weeds rob soil of moisture and fertility. It takes only a fraction of one pint to one quart, per acre, to kill most weeds! Come in and let us tell you about it today.

WEEDONE CRABGRASS KILLER

Relatively non-poisonous to humans and animals. It does not leave a poisonous residue on the treated area. It is non-volatile and does not kill the desirable grasses.

5 oz. can	\$.98
20 oz. can	\$2.97

PAMPCO SPRAYER

THE MIGHTY MIDGET OF THE SPRAYING WORLD



The superiority of the PAMPCO Sprayer is attained by its simple design and sturdy construction. Precision built, and of machined turned brass construction, the PAMPCO Senior Sprayer is strictly quality for heavy duty and long use. Its Neoprene hose with cast iron anchor base is recognized as the best material unaffected by chemicals. The extension for under-spraying shrubs and foliage is included with the senior sprayer.

Pampco Sprayer

\$6.50

INSECTICIDES: To fit every need

COLORADO .44

CHLORDANE INSECTICIDE



Colorado .44 emulsion concentrate is a Chlordane insecticide which is highly flexible and has many uses against such major insect pests as grasshoppers, lygus bugs, alfalfa weevils, livestock insects, household insects, truck crop, garden insects, and many others. Colorado .44 has many advantages over other insecticides. One advantage is the high percentage of kill due to the fact that it does not repel the insects and they cross treated areas freely to pick up a deadly dose. Colorado .44 has a residual action which continues to kill for many weeks.

One-half pint bottle	\$ 1.25
Pint bottle	1.95
Quart bottle	3.25
Gallon	8.40
5 gallon drum	37.50
30 gallon drum	251.10

BENZENE HEXACHLORIDE

Is a wettable powder which forms a suspension spray when mixed with water. It contains 12% Gamma Isomer. There is a good residual kill. It is becoming increasingly popular because it kills DDT-resistant flies and may be used in dairy barns and milk rooms in accordance with U. S. Department of Agriculture recommendations.

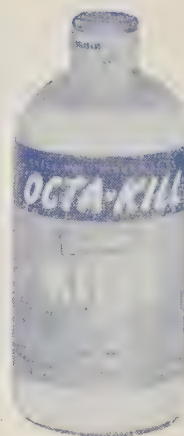
4 pound bag 2.00 \$2.40



Pint

\$5.9

Kilzit is a 2% chlordane solution in an oil base. It is produced expressly for use around the house to kill flies, roaches, moths, ants, mosquitoes, bedbugs and spiders. The oil base aids in its long residual killing power. It leaves an invisible film that kills by contact, vapors and stomach poison. It will not stain.



This is a 2% solution of Chlordane in a water base for use around the home, on pets and in the garden. Kills grasshoppers, roaches, flies, ants, bedbugs, mosquitoes, waterbugs, and many others. Gives a residual kill lasting from 2 to 3 weeks. Has a pleasant cedar-like aroma. It is wise to keep a bottle on hand all the time and when you have

an insect problem the answer is Octa-kill.

Per pint

\$7.9

Rotrate

KILL GRUBS WITH ROTRAT

Rotrate 5 is a non-fibrous wettable rotenone concentrate powder containing 5% rotenone and other cube resins. It comes in powder form ready to mix with water for spraying. It kills not only grubs but also lice and sheep ticks.

3 pound bag	\$ 1.95
7 1/2 pound bag	4.20
50 pound bag	25.50

50% WETTABLE DDT

This has long been the workhorse of the farm in killing flies and many other insects. It is in powder form readily soluble in water for spraying or as a dip.

4 pound bag	\$ 1.60
50 pound bag	17.00

TETRAFUME Weevil Killer

This Douglas grain fumigant has been successfully used for over 30 years. It is non-inflammable and non-explosive. When sprinkled on stored grain it forms a gas heavier than air and penetrates down thru the grain to kill insect life at all stages; adult, larvae, and egg.

1 gallon	\$3.95
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PURINA DDT FOR THE HOME

Its killing effect on flies, mosquitoes, roaches, ants, etc., lasts for days.

CONTAINS 5% DDT

Pint bottle	\$.40
Quart bottle	.75



Purina Fly Spray for Farm Buildings and Stock cattle contains DDT and V-15 (chlorinated hydrocarbons). V-15 aids in giving a quicker initial kill and longer sticking quality.

1 pound canisters	\$.95
3 1/3 pound bag	2.35
50 pound bag	30.00

ROTENOX

The Ideal Livestock Spray

Easier to mix ... Goes into solution readily with either water or oil. Easier to apply .. Emulsified oil base blends with natural oils of hair and hide, therefore, it does not require high pressure spray applications to be effective.

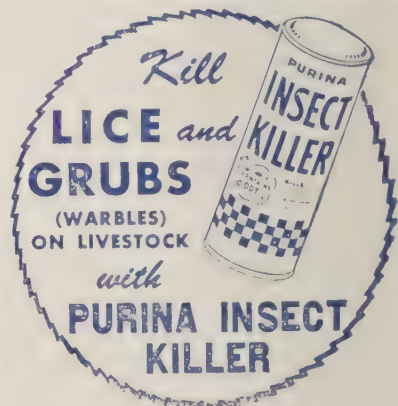
Most economical ... One gallon makes 160 gallons of spray. Sprays cattle for less than 2 cents a head.

8 oz. bottle	\$.63
Pint bottle	1.22
Quart bottle	2.28
Gallon jug	8.00
5 gallon drum	36.14

TOXAPHENE

The many people who used toxaphene last year have proved its effectiveness as an insecticide for grasshoppers and many others.

4 pounds toxaphene-1 gallon	\$ 4.63
4 pounds toxaphene-5 gallon	29.70



2 1/4 oz. canister	\$.40
15 oz. canister	1.10
5 pound canister	3.75

'REGISTERED BRANDS' SEEDS

FOR HAY and FORAGE



SUDAN GRASS

This is one of the best annual forage plants ever introduced. It is suitable for almost any locality. It thrives best on rich loam but has been grown successfully on almost every kind of soil from heavy clay to light sand. Sudan is a sorghum. It is an annual and has no underground root sprouts. It is a hot weather crop and will produce several cuttings in a long growing season. Enormous yielder and eaten readily by all kinds of livestock.

SWEET SUDAN GRASS

This new variety has been developed to produce a higher sugar content than the common strain, which makes it much superior for livestock feeding. It

is more vigorous, leafier, higher yielding, and more uniform than common sudan. It also is more disease resistant.

MILLET

PROSO—Seed of this millet has a slightly higher feeding value than oats, and it is found in many feed mixtures. When forage or hay is desired, the crop should be cut early. This strain is hardy and disease resistant.

RED PROSO—This is a good variety for hay and forage for general feeding.

SIBERIAN—This is a very fine, early, and extremely hardy drought-resisting variety. It is noted for its big yields. The forage is quite palatable, and the seed has a high feeding value.

OTHER FORAGE SEEDS

CANE, BLACK AMBER—Matures in 90 to 100 days. It is the favorite of many planters, because it is the earliest. It grows very tall when allowed to mature.

CANE, RANCHER—Certified Blue Tag seed. We have found this variety especially suited to the soils and climate in this area.

CANE, ORANGE—Matures in 100 to 110 days. It has a higher sugar content and produces more fodder than other varieties.

NORGHUM—An extra early, high yielding, new variety of grain sorghum released from the South Dakota Experiment Station in 1949. It is a combine type which grows from 36 to 46 inches tall. Seed panicles are long, open, erect and carried well above the foliage. Open panicle favors drying.

IMPROVED COES—35 to 50 inches tall, leafy, slender stalk, semi-juicy, very early. Seed heads long erect, and semi-compact, seeds white. A fair dual-purpose sorghum.

NORKAN—A cross between Atlas and Early Sumac. Semi-sweet stalk. Seeds white, palatable. Earlier than Atlas. 60 to 70 inches tall.

MARTINS MILO—This is a disease resisting, non-shattering early maturing type of combine sorghum. Heads erect, somewhat open, seeds reddish and slightly hard but brittle.

MIDLAND MILO—This is a heavy producing variety with moderate heads of high feeding value.



Window Boxes

There's nothing finer than window and porch boxes to make a house look "lived in" and gay.

The necessary boxes may be bought ready-made, or constructed at home. Redwood or cypress are the best lasting materials, but ordinary yellow pine will do nicely if well painted. Paint at least two coats, and use brass screws instead of nails to join the boards.

Drainage of flower boxes is important. Use about two inches of coarse gravel at the bottom. Cover this with a layer of sand, and then with good, rich soil. **Fertilizing** may be done with liquid manure, but commercial plant tablets are even better, and much easier to apply.

Plants suitable for window boxes are quite numerous. Among the best are **Petunias**, **Nasturtium**, **Ageratum**, **Candytuft**, dwarf **Marigold**, **Corn-flower**, **Babysbreath**, **Love-in-a-mist**, **Verbena**, **Sweet Alyssum**, **Vinca**. **English Ivy** adds a nice touch, as do various ferns.

Good Points to Remember

Pinch 'em off! To make annual flower plants branch and grow more flowers, most of the plants should have the top of the stem pinched off when they are a few inches high. Remove only the end bud, about $\frac{1}{4}$ ".

Divide your perennials. Most perennials must be divided every 3 or 4 years. Cut away all the dead roots and stalks, save the best portions, and start afresh.

Flower bed preparation. A good border needs a well prepared sub-soil. Dig deep and condition the subsoil just once, and you needn't bother about it again for many years. For this happy situation, break up heavy subsoil with sand, peat moss, humus, or lime. Top this off with fine loam. The double-dug bed will be higher than before, but will soon settle.

Formula for Pansy Growing

Pansies are not annuals but near-hardy perennials that need special culture. Cold frames, with glass sash and mats for winter protection are essential. Soil should be rich: up to one-third of soil can be well-rotted manure or sifted compost. Sow seed in August. Protect frame with shades made by tacking muslin or cheese cloth over window screens. Thin plants to stand 4" x 4". After first frosts, cover with glass and mats, and allow to freeze slowly. Remove mats in early spring and allow sun to warm frame. Move plants into permanent position when in full bloom. Keep faded flowers picked; they will stop blooming if any seeds are allowed to form. Growing good Pansies from seed is the test of a real gardener.

Two Interesting House Plants

The **Heavenly Blue Morning Glory** makes an excellent house plant for winter flowering if grown in a sunny window. Start new plants in late August, using 6" pots (they make heavy root growth). They can be trained up strings on either side of the window. **Lobelia** plants can be lifted just before frost, cut back, potted and will flower indoors in late winter.

5 "Where to Plant" Ideas

Flowers in the vegetable garden. To have plenty of cut flowers without disturbing your flower borders, plant a few rows of flowers along the edge of your vegetable garden. Or set them out between rows of early lettuce or radishes, where they can bloom after the vegetables have been used.

Annuals in the tulip bed. Just after the late tulips finish blooming, set out some annuals between the tulip plants. If you do this, you may safely leave the tulip bulbs in the ground for several years, or at least until they need separating.

Flowers for trellis or fence. Vines for quick cover here are quite numerous. For brilliant color effects, plant **Cardinal Climber**, **Scarlet Runner Bean**, **Cypress Vine**, or **Japanese Morning Glory**. Less colorful are the **Cup-and-Saucer Vine**, **Hyacinth Bean**, **Balloon Vine**, and **Heavenly Blue Morning Glory**. For heavy foliage effects, gourds are good.

For garage cover. Sometimes it is highly desirable to screen off the bare walls of the back-yard and garage. For quick results, the taller annuals, such as cosmos, hollyhocks and sunflowers are desirable. Any of the vines named in the last paragraph above are suitable, too.

Between drive and property line. This narrow strip is often a very nice place for a long flower border. A low effect may be had by plantings of balcony petunia, portulaca, and sweet alyssum. Or a hedge-like effect is easy to get with **Kochia**, **Four O'clocks**, **Zinnias**, or **Marigolds**.



SWEET PEA
Spencer, Rose Pink



RUSSELL LUPINES



PETUNIA
Rose of Heaven



NASTURTIUMS
Gleam Hybrids



PANSY
Swiss Giant

103 FLOWER SUGGESTIONS FOR PLANNERS

For Shady Locations

Most annuals need plenty of sunlight, but there are a few which do fairly well in the shade, or with partial sun. The following are worth a trial in shady spots:

Cornflower	Cleome
Nasturtium	Candytuft
Pansy	Larkspur
Vinca	Lupine
Coreopsis	Godetia
Nicotiana	Lobelia
English Daisy	Bleeding Heart

In the vine group, those which often prosper in fairly shady places are **Cardinal Climber**, **Cup-and-Saucer Vine**, and **Morning Glory**.

For Hot, Dry Locations

In spots where the sun beats down mercilessly all day long, many flowers can not prosper. But some of the annuals can do well, even in these difficult locations. Here's a good list:

Sweet Alyssum	Petunia
Ageratum	Phlox, Annual
Bachelor Button	Poppy, California
Cosmos	Portulaca
Dianthus	Scabiosa
Dimorphotheca	Zinnia
Gaillardia	Four O'Clock
Marigold	Salvia

Perennials for hot locations are less plentiful, but you can usually do well with **Babysbreath**, **Perennial Asters**, **Sedum Acre**, **Statice**, and **Blanket Flower** (Gaillardia).

Flowers for Poor Soil

Of course, the right answer to poor soil conditions is "Improve the soil! But if you can't or don't want to do this, you can usually get fairly good results in poor soil with these:

Amaranthus	Marigold
Balsam	Nasturtium
California Poppy	Petunia
Calliopsis	Portulaca
Gaillardia	Sweet Sultan

These Need Successive Sowings

Some of the annuals which come into bloom quickly, keep blooming for only a little while. If you want them in bloom through the season, make several successive sowings at two to four week intervals. Flowers in this class include:

Calliopsis	Gypsophila
Candytuft	Larkspur
Cornflower	Mignonette
Forget-me-not	Poppy

For Late Gardens

Even in mid-summer, there's still time to start some of the annuals from seed and have lots of bloom before the season is over. The soil must be well prepared and fertilized. The proper flowers for such late planting are:

Babysbreath	Cosmos
Calendula	Portulaca
Cornflower	Shirley Poppy

Petunias and **Snapdragon** seedlings may be started late, too.

Most Dependable Annuals

As every experienced gardener knows, some annual flowers succeed under exactly the same growing conditions which let other flowers fail. There is quite a list of annuals which are highly dependable. Given proper soil and care, these "old reliables" are practically sure to produce good results:

Balsam	Marigold
Calendula	Nasturtium
California Poppy	Petunia
Calliopsis	Phlox
Cornflower	Pinks
Cosmos	Portulaca
Flowering tobacco	Salvia
Four O'clock	Scabiosa
Gaillardia	Shirley Poppy
Globe amaranth	Snow-on-the-mountain
Hollyhock	Sweet Alyssum
Larkspur	Zinnia

Annuals for Fragrance

We are often asked, "What annuals are really fragrant?" We recommend **Alyssum**, **Candytuft**, **Carnation**, **Mignonette**, **Gleam Nasturtiums**, **Petunia**, **Scabiosa**, **Stocks**, **Sweet Peas** and **Wallflower**.

For Winter Bouquets

Several flowers can be dried and used for winter decorations. The everlastings are best known but **Statice** and **Gypsophila** are also fine. **Celosia** will last a long time but is not as showy as the others.



MARIGOLD
Red Head



COREOPSIS
Double Sunburst



CENTAUREA
Imperialis



DIANTHUS
Single, Mixed



CARNATION
Chabaud's Enfants



MARIGOLD
Butterball

FLOWER SEEDS

The finest in the world

KEY TO SYMBOLS

The symbols below the name of each flower give you the following information.

(a)—Annual

(b)—Biennial

(hp)—Hardy Perennial

The Culture Number shown for each variety refers to the "How to Grow" information on page 33.

AGERATUM

(a) Culture I, 4-9"

Blue Cap—A new, very compact sort with rich blue flowers. Pkt. 15c.

Blue Perfection—A deep amethyst blue. Grows to 9 inches high.

Midget Blue—Small 4-inch plants are covered with azure blooms. Pkt. 25c.

ALYSSUM

(a) Culture II (hp) VI, 4-6"

Carpet of Snow (a)—Masses of tiny pure white flowers on 4-inch plants.

Violet Queen (a)—Deep violet highlighted by white in center. Pkt. 15c.

Saxatile (hp)—Dwarf perennial. Golden flowers in earliest spring. Pkt. 15c.

ANTIRRHINUM—Snapdragon

(a) Culture I, 1½-3'

Half-Dwarf, Large flowered—Heavy spikes on 2-foot plants. Mixed colors. Pkt. 15c.

Tall Giant, Large flowered—Large 3-foot spikes with huge flowers. Pkt. 15c.

Lemonade—Clear primrose-yellow. Long, strong stems. A double snapdragon which forms extra petals in each floret. Pkt. 50c.

Maximum—Tallest kind. All colors. Pkt. 25c.

Super-Majestic—Semi-tall to 2 feet. Large flowers, ideal for garden. Pkt. 25c.

Tetra—Rust resistant. Immense flowers in many fine colors. Produce many spikes. Mixed. 25c.

ANCHUSA

(a) Culture I, 2'

Blue Bird—Bushy plants with sprays of clear blue, white-eyed flowers. Pkt. 15c.

AQUILEGIA—Columbine

(hp) Culture VI, 2½"

Mrs. Scott Elliott's Long Spurred—Large colorful blooms. Pkt. 25c.

ARABIS—Rock Cress

(hp) Culture VI, 1'

Creeping plants with small flowers in early spring. Fine for edging. Pkt. 15c.

ARCTOTIS—Blue-Eyed African Daisy

(a) Culture I or II, 3'

Grandis—Two-inch daisies of pearly white with bluish center. Pkt. 15c.

ARMERIA—Thrift

(hp) Culture VI, 1½'

Dwarf rock plants with grassy foliage and globular flowerheads. Pkt. 15c.



ASTER—El Monte

AUBRIETIA—Purple

(hp) Culture VI, 6"

A creeper with large colorful flowers in early spring. Ideal with bulbs. Pkt. 25c.

ASTER

(a) Culture I, ½-2½'

American Branching—Four inch double flowers of compact form. Brilliant colors.

California Giants—Large double with curled petals. 3' plants. Pkt. 15c.

El Monte—A huge flower 8" across. Interlaced crimson petals. Pkt. 20c.

Giant Crego—Large 4-inch flowers with fluffy effect. All colors. Pkt. 15c.

Los Angeles—Huge flower with curled petals of shell pink. Feathery. Pkt. 20c.

Pompon—Early 18-inch plants. Many brilliant colors. Mixed Pkt. 20c.

Princess—Three-inch flowers are compact with a crested center. Mixed. 15c.

Queen of the Market—Early. Short plants. Compact double flowers. Mixed Pkt. 15c.



ASTER—California Light Blue

Sunshine—4" flowers. Loose row of petals, quilled center. Pkt. 25c.

BACHELOR'S BUTTONS—Centaurea, Cornflower

(a), Culture II or IV, 3'

Blue Boy—A fine, clear blue. Flowers are large. Colors intense. Pkt. 15c.

Pinkie—Lovely rose pink. Pkt. 15c.

Red Boy—Bright crimson. Pkt. 15c.

Snow Man—Snow white. Pkt. 15c.

Jubilee Gem—Dwarf, 1' plant. Large, frosty blue blooms. Pkt. 15c. Mixed—All colors. Pkt. 15c.

Blanket Flower—See Gaillardia.

Balloon Vine—Love in a Puff

(a) Culture I, 1½-2½'

A clean, free-growing vine with small white flowers, and balloon-like seeds.

BALSAM—Lady Slipper

(a) Culture II, 1½-2'

Mixed—Double Camellia-like flowers all summer on bushy plants. Pkt. 15c.

Bellis Perennis—see Daisy, English.

Blue Lace Flower—see Didiscus.

Brachycome—see Daisy, Swan River.

Burning Bush—see Kochia.

Butterfly Flower—see Schizanthus.



CALENDULA—Sunset Shades

ALL FLOWER SEEDS

10c PER PACKET UNLESS OTHERWISE NOTED

CALENDULA—Pot Marigold

(a) Culture II or IV, 1½'

Orange Shaggy—Large orange flowers with fringed overlapping petals.**Orange Quills**—Mid-Orange, bright. Unusual petal habit, curves beneath blossom to meet underneath. Pkt. 25c.**Sunshine**—Golden flowers, with drooping petals. Odorless. Pkt. 15c.**Pacific Beauty, Persimmon**—Large, bright orange, double flowers. Pkt. 15c.**Sunset Shades**—Large flowers in shades of yellow and orange. Pkt. 15c.**Mixed**—Fine mixture of many colors and types. Good for cutting.**CALLIOPSIS—Tickseed**

(a) Culture II or IV, 1-3'

Dwarf mixture—One-foot plants with many colors of yellow and red.**Tall mixture**—A splendid range of colors on tall plants.**CAMPANULA—Canterbury****Bells**

(b) Culture VIII, 2'

Single—Large bell-shaped flowers in many colors. Graceful plants. Mixed.**Double**—Fine double flowers in blue, pink and white shades. Mixed. Pkt. 15c.**Cup and Saucer**—Bell-shaped. Saucer of petals at base. Mixed. Pkt. 15c.

CELOSIA

CANDYTUFT—Iberis

(a) Culture III, 1'

White Hyacinth—Large conical spikes of snowy flowers. Fine for edging.**Umbellata mixed**—Umbrella-like flower clusters. Many fine colors.**CARDINAL CLIMBER—****Imp. Cypress Vine**

(a) Culture III, 10-15'

Slender vine with bright green fern-like leaves. Bright red flowers. Pkt. 15c.

CARNATION

(a) Culture I or VIII, 18"

Chabaud's Giants—Large double flowers with sweet fragrance. All colors. Flower in six months. Pkt. 15c.**CASTOR BEAN—Ricinus**

(a) Culture III or VII, 10'

Zanzibariensis—Tall, strong plant for bold effect. Large lobed bright green leaves. Fine for backgrounds.

ALL



COSMOS—Sensation

CELOSIA—Cockscomb

(a) Culture I or III, 1-3'

Shades of Red—Low grower with large crested heads. Like rooster combs.**Feathered**—Tall, feathery heads of flowers in red and yellow shades.**CHRYSANTHEMUM**

(a) Culture II or IV, 1½'

Single Painted Daisy, mixed—Showy daisy-like flowers. Rings of red, yellow, on white, red or yellow flowers.**CENTAUREA—See Bachelor's Buttons****CLARKIA**

(a) Culture II or IV, 2'

Double mixed—Large double flowers in many gorgeous colors. Graceful plant. Does well in light shade.**CLEOME—Spider Plant**

(a) Culture II or IV, 3-4'

Pink Queen—A tall plant with many clear pink flowers. Neat foliage. Pkt. 15c.**COCKSCOMB—See Celosia****COREOPSIS**

(hp) Culture VI, 2'

Sunburst—Large double flowers of rich golden color. Fine for cutting. Pkt. 15c.**COLUMBINE—See Aquilegia****CORN FLOWER—See****Bachelor's Button****COSMOS**

(a) Culture II or IV, 3-4'

Dazzler—Wavy fluted petals of a velvety crimson-maroon. Pkt. 25c.**Orange Flare**—Vivid orange flowers on long stems. For brilliant effect. Pkt. 15c.**Orange Ruffles**—Semi-double flowers. Golden orange. Airy effect. Pkt. 25c.**Yellow Flare**—Butter-yellow flowers. Similar to Orange Flare. Pkt. 15c.**Radiance**—A bi-color! Beautiful, deep rose flowers have a rich crimson zone in center. Striking! Pkt. 25c.**Sensation mixed**—Huge single flowers with wavy petals, many colors. Pkt. 15c.**CYNOGLOSSUM—Chinese****Forget-Me-Not**

(a) Culture II, 15"

Firmament—Hundreds of tiny indigo blue flowers. Resemble Forget-me-nots. Bloom all summer. Pkt. 15c.**DAHLIA**

(a) Culture I or II, 14"

Unwin's Ideal Bedding—Semi-double flowers on low bushes. Fine for beds or borders. Many colors. Pkt. 20c.**DAISY, AFRICAN—See Arctotis****DAISY, ENGLISH—Bellis Perennis**

(hp) Culture VI, 8"

Low plants with colorful double daisies in early spring. For beds, edges. Pkt. 15c.

DAISY, SWAN RIVER—Brachycome

(a) Culture II, 10"

Mixed—Many colored small daisy-like flowers freely produced all summer. Pkt. 15c.**DELPHINIUM—Perennial Larkspur**

(hp) Culture VI, 5'

Giant Pacific Hybrids—World famous strain of immense double flowers on tall stems. Many new colors. Pkt. 35c.**Shades of Blue**—A fine mixture of large showy kinds in light and dark blue. Pkt. 35c.**DIANTHUS—Pinks**

(a) Culture I or VIII, 1'

Double and Single mixed—Fine mixture of colorful, sweet-scented, garden pinks.**Gaiety**—Fringed petals in a wide range of flower colors and shapes. Pkt. 15c.**Heddensis**—New tetraploid hybrids! Larger flowers, longer stems, better growth. Many fine colors. Pkt. 15c.**DIDISCUS—Blue Lace Flower**

(a) Culture I or II, 2½'

Coeruleus—Lacy heads of lavender and blue flowers. Lovely to cut.**DIGITALIS—See Foxglove****ESCHSCHOLTZIA—California Poppy**

(a) Culture III, 1'

Large single poppy-like flowers in many showy colors. Fern-like leaves.

EVERLASTING FLOWERS

(a) Culture II, 1½-3'

Mixed—Contains such favorites as Strawflower and Globe Amaranth. Fine for dried bouquets and winter use.**FLOWERING FLAX—See Linum****EUPHORBIA—See Snow-On-The-Mountain****FOUR O'CLOCK—Mirabilis**

(a) Culture III, 2'

Bushy plants covered with flowers of red, pink, white, violet, and yellow. Flowers close in bright sun. Pkt. 15c.

FOXGLOVE—Digitalis

(b) Culture VIII, 3'

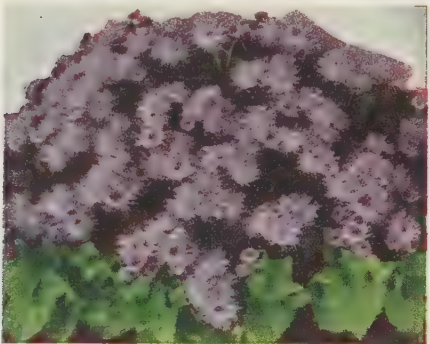
Tall spikes of lovely thimble-shaped flowers of pink, rose, and purple. Blooms second year.



Sunflower
(HELIANTHUS) Sun Gold



ZINNIA, Dahlia Fl. Crimson



AGERATUM, Little Dorrit, Blue



PHLOX, Drummondii

MORNING GLORY, Cornell



HOME GARDENING GUIDE

HOW TO GROW BETTER, BIGGER ROSES

Give roses the best location possible. They want: well-drained soil; at least a half-day's full sunlight (morning sunlight is not especially desirable); shelter and protection from prevailing winds. They should not be too close to large trees.

Prepare the rose beds in advance, if possible. Where the soil is good garden loam which has been under cultivation for some time and is well drained, so there is no standing moisture, the preparation is easy. Dig to twice the depth of a spade—about 24 inches. Mix thoroughly generous quantities of Manure and Bonemeal and two tablespoonfuls of Sulphate of Potash with soil in bottom of hole. Let stand and settle.

Summer Care

Giving your Roses close attention throughout the summer months can add a great deal to the enjoyment you get from them. Here are some of the things to be considered in growing the full-blooming beauties that are the pride of every gardener.

CULTIVATION—Throughout the summer, until September, roses should be cultivated regularly to destroy weeds and aerate the soil. The soil should never be allowed to bake. One method used to keep

a crust from forming is the application of a peat or terra-lite mulch. This also helps conserve moisture. After a heavy rain, it is advisable to hoe and rake rose beds just as soon as the soil has dried sufficiently.

WATERING—Any watering should be thorough. Sprinkling is actually bad for your roses since it brings feeding roots to the surface and causes burning. Water early in the morning, preferably. This way, foliage will be dry by nightfall, lessening the danger from mildew, a disease which likes the combination of cool nights and wet foliage. During extremely hot periods, it is a good idea to hose plants with a strong stream of water several times during the day.

DISBUDDING—Beautiful flowers for cutting may be had by disbudding. The central bud of a cluster is usually the best and by allowing only this bud to develop, you can enhance its beauty. This applies to Hybrid Teas and Hybrid Perpetuals. Polyanthas and landscape Roses need no disbudding. In cutting flowers, it is best to cut in early morning before petals start to unfold. Cut the stems two buds above the point where they branch from the main stem.

How to Plant Perennials

The soil should be well worked and free of big lumps and air pockets. The average planting distance for perennials is one foot apart. Vigorous growers like peonies and mallows require as much as three feet apart. No. 1 plants (see below), such as iris, should be planted with the main root just below the surface of the ground. No. 2 plants, such as peonies, should be planted with the tips of the buds at or just below the surface of the ground. No. 3 plants, in which the leaves spring from the crown, should be planted with this crown on the level of the dirt line. No. 4 plants, such as hollyhocks, should be planted with the root straight down and the bud just below the surface of the dirt. Spread roots out naturally. Bring the soil in contact with all roots and press firmly. If the plants are watered, water the roots and not the tops.



MARIGOLD,
Mission Giant Yellowstone



How to Plant Shrubs

Keep roots covered with damp sack or something similar and do not let them become dry. Spade ground deeply, digging large holes with perpendicular sides. Cut off broken or bruised roots and cut back top one-third to one-half. Plant slightly deeper than they stood in nursery. Tamp soil firmly around roots and fill top of hole with several inches of loose earth to serve as mulch.

How to Prune and Plant Trees

With shade trees having a heavy top, at least one-third of the top should be removed. Prune to avoid crowding branches. Cut out some of the small branches, shorten back the side branches, but do not cut off the leader or main stem. Try to get well developed head, strong leader and branches at wide, not close, angles. Cut off all broken roots.

In choosing trees for the home grounds, study the house and the effect you want to produce. If the house appears tall or seems to stick up too much in the air, plant trees that will tower and spread over it, or trees that will shoot up tall and narrow and make it appear lower in contrast. If it is a low house it can be made to hug the ground or to appear higher by a judicious selection of trees.

PETUNIA, Radiance



HOW TO GROW

All flowers listed in
this Garden Annual

The numbers, I to VIII, found with every flower listing refer to the following culture notes which give directions for growing all of the flowers we list.

One of the important problems in the garden is that of maintaining a continuous show of bloom. This calls for the use of several different types of annuals, such as those that must be planted early to grow in cool weather (**Culture IV**) and those which bloom later in summer heat (**Culture I and II**). If some of the cool-weather annuals from **Group IV** are sown in mid-summer and kept well watered, they will grow slowly until the cooler days of fall start them into more active growth. These will produce late flowers. Quick-growing annuals from **Group II** may also be sown at intervals for a succession of bloom during the summer.

One way to lengthen the blooming period of annuals is to cut off all flowers as soon as they fade. Annuals complete their life span when seed is formed and frequently stop flowering as soon as the seed ripens. By preventing the seed from forming through removal of all old flowers, the plants are kept growing and blooming.

Culture I

These flowers need a long season and must be started indoors if a full blooming period is to be had. If early bloom is not important, they will bloom later in the summer when sown directly in the garden. Some gardeners sow both ways to obtain a succession of flowers.

When starting seedlings indoors, select a place with plenty of light. North or shaded windows may be too dark for best results. Cold frames are generally very good. The seed is planted in small boxes (or flat) that have good drainage and will fit the space you are going to use. Fill them with a mixture of $\frac{1}{3}$ good soil, $\frac{1}{3}$ sand and $\frac{1}{3}$ humus such as peat. Press the soil down firmly and make small rows with the edge of a ruler or lath and slowly shake the seed from the packet into the rows. Sift a light covering of the soil mixture over the seed and moisten with a fine spray. Keep soil moist until the seeds have sprouted. Very fine seed such as that of petunias should be dusted carefully onto a smooth soil surface and covered with a pane of glass. Shade it with newspaper until the seeds sprout. These are best watered by setting the flat in a pan of water until the soil has become thoroughly dampened all the way through. When the seedlings have formed the second true leaves, transplant them into other flats so the plants are about $2\frac{1}{2}$ inches apart. This will give them room to grow to good size before being set out. Expose gradually to outside conditions and plant outside after the weather is warm and settled. When sown directly outdoors, follow directions under **Culture II**.

Culture II

These are the quicker-growing annuals that can be sown directly in the garden and will bloom in time to make a good display for

most of the summer. If wanted especially early, they should be started as directed under **Culture I**. Some flower seedlings are rather delicate. Extra care in preparing the seed bed will pay dividends in better plants.

Prepare soil with a liberal amount of mixed fertilizer and organic matter and dig it in. Rake the surface until it is smooth and pulverized. Sow the seed at a depth equal to three times the diameter of the seed. Fine seed can be spread on the surface and pressed in without covering.

Keep soil moist by light spraying until the seedlings have formed the first true leaves. When they are large enough to handle, they may be transplanted to other parts of the garden.

Culture III

These flowers do not transplant well. They should be planted where they are to bloom.

Sow as soon as the weather begins to warm in the spring. **Otherwise the culture is the same as II.** Sow seed thinly or remove the smaller plants after they are up. These can be handled as pot-grown plants as in **Culture VII**.

Culture IV

These flowers are unusually hardy annuals that can withstand very cool weather. They are often sown late in fall so they can start growing the first warm days of spring. If not sown in fall, they should be planted as early in the spring as possible. Fall sowing gets the seeding job out of the way before the spring rush.

Culture V

These flowers, while garden subjects, are also useful for winter-flowering house plants. **For garden use, handle as in Culture II.** For winter flowering indoors, plant fairly late in the season and transplant

into small pots as soon as they are large enough. Keep moving them to larger pots as roots fill the soil until they are finally in six-inch pots. Annuals in pots should have at least six hours of direct sunlight daily if they are to flower.

Culture VI

Perennials can be seeded at almost any time of the year. Best periods are early in the spring or in early summer when the rush of spring work is over. A cold frame or sheltered bed which can be shaded from the direct sun is best. Prepare soil thoroughly with plenty of organic matter. A loose, friable soil will produce a thick mat of roots so that the seedlings will transplant more easily. Perennial seedlings are rather weak growers needing extra care. In covering the drills in which the seeds are sown, use either pure, clean sand or a mixture of half sand and half peat. This prevents packing of the soil over the seeds. Always water with a fine spray.

As soon as the second leaves form, seedlings may be transplanted into their permanent position. Or, if more convenient, they may be left in the seed-bed until the following spring. Under this culture, only a few species will bloom the first year and they will not produce normal flowers until the following year. Planting earlier does increase the chances for flowers the first year. But, if it is more convenient, **Culture I may be used.**

Culture VII

These varieties need a longer growing season than can be given them outdoors. And because they do not transplant well, they must be started in pots and set out without disturbing the roots. **Otherwise Culture is the same as I.** The use of plant bands allows you to set the seedlings out without disturbing the roots. The bands soon rot away and the seedlings will grow as though started in the garden.

If clay pots are used, the excessive drying can be avoided by placing the pots in a flat and filling the space between them with damp peat or vermiculite. Be sure to keep this material moist or it will draw moisture from the pots.

Culture VIII

These flowers are biennials. They make a leafy growth the first year but do not flower. The leafy growth of the first year forms food for blooming the following year. The flowers appear the second year and then the plant dies.

This means that a continuous show from biennials must be provided by starting new plants every year to replace those that are flowering. Biennials are handled in the same way as perennials except that they are started early in the spring to allow the plant to store as much food as possible for the next year's bloom.

Many gardeners start biennials in the vegetable garden or special starting bed and then transplant the ones needed to the flower garden the following spring. During the winter, biennials should be given the same treatment as perennials.



GAILLARDIA—Blanket Flower

(a) Culture II, (hp) VI, 2'

Single, Mixed (a)—Large daisy flowers in many brilliant colors. Pkt. 15c.

Double, Mixed (a)—Double flowers in wide range of showy colors. Pkt. 15c.
Picta (a)—Showy round flowers with tubular petals. Many brilliant colors. Pkt. 15c.

Monarch (hp)—Superb daisy type flowers in shades of red and yellow.

GILLIFLOWER—See Stocks

GLOBE AMARANTH—See

Everlasting Flowers

GOMPHRENA—See

Everlasting Flowers

GOSETIA—Satin Flower

(a) Culture I or II, 2'

Double, Mixed—Azalea-like flowers of many colors on bushy plants.

GOURDS, ORNAMENTAL

(a) Culture III, 12'

Mixed—Large and small kinds that will be useful for drying and novelties.

GEUM

(hp) Culture VI, 1½'

Mrs. Bradshaw—Glowing Scarlet flowers. Bright green foliage. Pkt. 20c.

GYSOPHILA—Baby's Breath

(a) Culture I, (hp) VI, 1½-3'

Annual White (a)—Open, bell-shaped blooms on branching stems give airy touch to garden or bouquet.

Annual Pink (a)—The small flowers are a rosy pink. Like above.

Perennial white (hp)—Large loose clusters of small flowers give misty effect.

HELIANTHUS—Sunflower

(a) Culture II, 6'

Sun Gold—Large double flowers of a brilliant golden yellow. Pkt. 15c.

HIBISCUS—Rose Mallow

(hp) Culture VI, 4'

Giant mixed—Huge bell-shaped flowers in white, pink, red. Tall plants for damp spots. Pkt. 15c.

HUNNEMANNIA—Mexican

Tulip Poppy

(a) Culture III, 1½'

Sunlite—Soft yellow double poppy type flower. Bluish fine cut leaves. Pkt. 15c.

HOLLYHOCK

(hp) Culture VI or VIII, 5'

Double mixed—Large double flowers on tall spikes. Bloom in midsummer. Excellent backgrounds. Pkt. 15c.

KOCHIA—Burning Bush or Summer Cypress

(a) Culture III, 2½'

Compact pyramid. Needs no trimming. Bright green foliage makes neat, quick hedge. Turns bright red in fall.

LARKSPUR—Annual Delphinium

(a) Culture II or IV, 3'

Blue Spire—Tall spikes of large double flowers in a lovely violet blue. Pkt. 15c.

White King—Pure glistening white spikes. Tall and stately. Pkt. 15c.

Pink Perfection—Lively light salmon pink. Glorious when cut. Pkt. 15c.

Regal—Rose color. Long, thick spikes with exceptionally large florets. Vigorous and early. Pkt. 25c.

Ruby—A genuine ruby red. A bright color in garden or bouquet. Pkt. 15c.

Giant Imperial mixed—A fine mixture of the above kinds and others. Pkt. 15c.

LATHYRUS LATIFOLIUS—See

Perennial Sweet Pea

LAVATERA—Annual Mallow

(a) Culture II, 2-3'

Loveliness—Large bowl shaped, rosy pink flowers all summer. Attractive bronzy foliage. Pkt. 15c.

LINUM—Flowering Flax

(a) Culture III, (hp), VI, 1-2'

Scarlet (a)—Bright red flowers in a constant succession all summer.

Perennial Blue (hp)—Low bushy plant blooming from spring to mid-summer. Small, clear blue flowers in profusion. Pkt. 25c.

LOBELIA

(a) Culture I or V, 4"

Crystal Palace—Compact border plant with myriads of tiny bright blue flowers. For all low use. Pkt. 25c.

LUPINE

(hp) Culture III or VII, 3'

Russell's Mixed—Finest of all the lupines! Brilliant colors in long, strong spikes of pea-shaped flowers. Pkt. 25c.

MALLOW, ANNUAL—See Lavatera

MALLOW, ROSE—See Hibiscus

MARIGOLDS

(a) Culture I or II,

Tall Types 1½-3'

Burpee Gold—Large carnation-like flowers in bright orange. Odorless foliage. Pkt. 15c.

Guinea Gold—Large round flowers in a rich gold. Very popular.

Yellow Supreme—Light yellow, large flowers of carnation form. Pkt. 15c.

Sunset Giants—Huge dahlia-flowered strain. Lemon and gold. Pkt. 15c.

Crown of Gold—Golden flowers with crested center and broad collar of petals. Odorless foliage. Pkt. 15c.

Double Dwarf Types ½-1'

Melody—Foot high plants with loads of orange ball-shaped flowers. Pkt. 15c.

Spry—Compact plants with showy yellow flowers bordered with mahogany. Pkt. 15c.

Sunkist—Compact plants with masses of golden orange blooms. Pkt. 15c.

Scarlet Glow—Compact, with bright red, 2" blooms. Reddest of all. Pkt. 15c.

Double French Hybrids mixed—Compact plants with flowers in yellow, orange, mahogany, and bronze. Pkt. 15c.

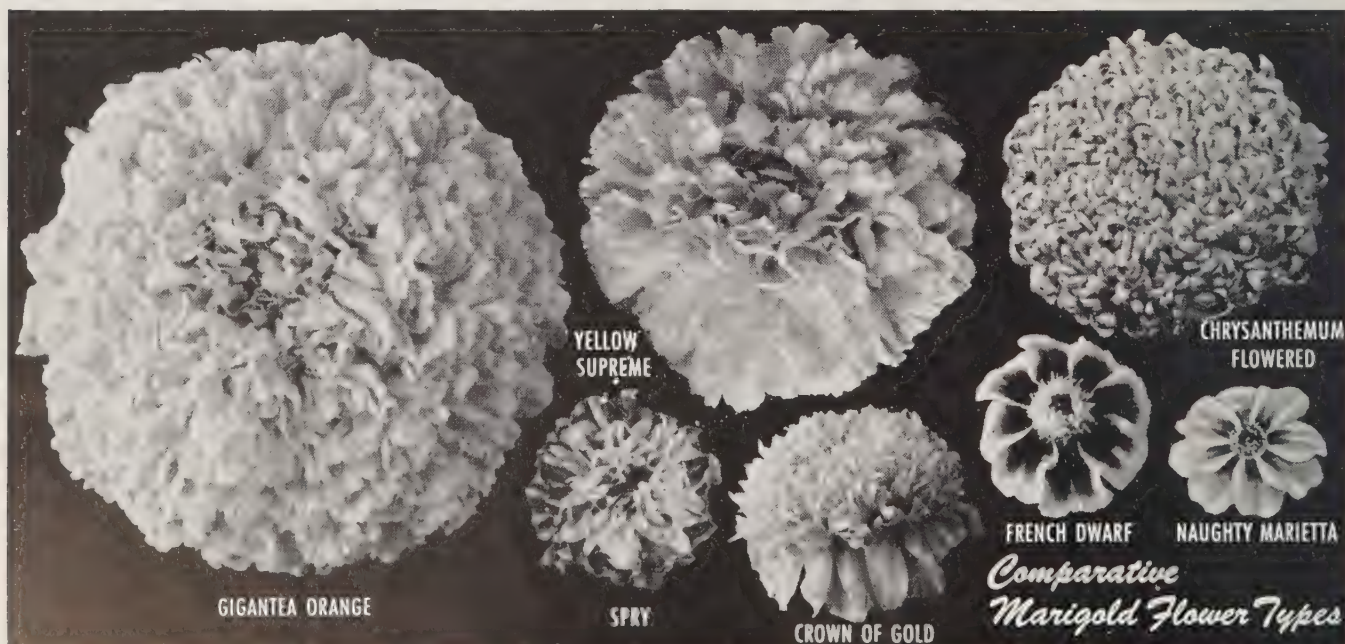
Single Dwarf Types, 1-1½'

Flash—Plants have many 1¼" flowers in tangerine and red shapes. Grows about 18". Pkt. 25c.

Naughty Marietta—Open 2½" flowers are rich gold with maroon at base of petals. Splendid for edging. Pkt. 25c.

Red Head—New! 1948 All-America Award. Crested center of gold edged maroon, petals deep changeable red. Pkt. 25c.

Royal Scot—Alternating stripes of red and gold. Very different. Pkt. 15c.



HANDY PLANTING GUIDE FOR FLOWER GARDEN PLANNERS

KEY—For classification of flowers by purpose, location, etc., see the second column below. The meaning of the key letters in this column is as follows:

A—For dry, hot locations
B—For a succession of blooms
C—For shady locations
D—For poor soil
E—For edging
F—For the rock garden.

G—For their foliage
H—Everlasting for winter bouquets
I—For their fragrance
J—For porch or window boxes
K—Climbing Vines
L—For backgrounds.

	Height (Inches)	Suitable for	Average Days to Germinate	Approx. Time of Bloom	Shape of Plant
Ageratum	4-12	E F J	5-10	10 Wks.	bushy
Alyssum, Sweet	2-12	B C D E F I J	5-10	6 Wks.	spreading
Antirrhinum	12-60	C I L	20-25	3-4 Mos.	bushy
Aquilegia	18-36	C E F	15	3 Mos.	branchy
Balsam	14-20	A E	10-12	6 Mos.	erect
Calendula	12-36	D	10-14	12-14 Wks.	bushy
Campanula	18-24	F	8-15	10-12 Wks.	bushy
Candytuft	6-18	B F I	5-10	8-10 Wks.	bushy
Centaurea	18-36	A B C D E I J	5-20	3-4 Mos.	erect
Chrysanthemum	24-36	A E	5-20	8-10 Wks.	bushy
Celosia	12-36	D E H	20-25	10 Wks.	bushy
Cosmos	36-60	A	5-15	10-12 Wks.	bushy
Coreopsis	18-36	A B D	10-20	4-5 Mos.	bushy
Dahlia, Dwarf	14	F	10	3-4 Mos.	bushy
Delphinium	36-72	L	15-21	3-4 Mos.	tall
Digitalis	30-48	F	10-20	3-4 Mos.	erect
Dianthus	4-15	F I	5-10	12 Wks.	bushy
Eschscholtzia	10-12	C D F	5-12	12-15 Wks.	bushy
Four O'Clock	24-30	A D		5-10	3-4 Mos. bushy
Gaillardia	18-30	D		15-20	2-3 Mos. bushy
Godetia	12-24	C D		15-20	2 Mos. erect
Gypsophila	18-36	B H		15-20	8-10 Wks. branching
Helichrysum	24-36	H		5-10	3 Mos. bushy
Hollyhock	48-84	L		5-20	10 Wks. slender
Kochia	30-36	A B		15-18	Foliage bushy
Larkspur, Annual	30-72	L		15-20	10-12 Wks. tall
Lathyrus	60-72	I K		25-40	2-3 Mos. vine
Lobelia	4-8	E J		10	10-12 Wks. bushy
Marigold	8-36	B J		5-8	6-8 Wks. bushy
Mignonette	10-12	B I			3-4 Mos. erect
Moon Flower	12 ft. or more	I K		5-8	4-5 Mos. vine
Morning Glory	12 ft. or more	A K		5-8	3-4 Mos. vine
Nasturtium	12-36	D E F K		8-15	2-3 Mos. bush. vine
Nigella	10-18	B F		10-15	10-12 Wks. bushy
Nicotiana	30-48	I		20-25	10-12 Wks. branchy
Pansy	4-8	C E F		10-15	10-12 Wks. clump
Petunia	10-24	D E F J		18-20	10-12 Wks. bushy
Phlox	10-18	A B C F I J		20-25	8-10 Wks. bushy
Poppy	18-36	B		20	12-15 Wks. erect
Portulaca	4-6	A D E F J		18-20	6 Wks. spready
Salvia	12-42	A		15-25	3-4 Mos. bushy
Scabiosa	18-30	I		18-20	2-3 Mos. bushy
Stocks	12-24	I		5-15	12-14 Wks. bushy
Schizanthus	18-36	C E		20-25	6-8 Wks. bushy
Sweet Pea	36 or more	K		15-20	10-12 Wks. vine
Sweet William	12-24	F		10	12 Wks. bushy
Verbena	6-12	E F J		8-10	12 Wks. spready
Wallflower	12-18	I		5-12	2-3 Mos. bushy
Zinnia	12-36	A F		5-10	6-8 Wks. bushy



CALENDULA, Orange Shaggy

DELPHINIUM, Pacific Hybrids



GAILLARDIA, Double Mixed



BACHELOR'S BUTTONS, Blue Boy

PINKS
(Dianthus)
HEDDENSIS,
Tetra Mixed

MIGNONETTE—Reseda

(a) Culture III, 1'

Low grower with tiny, white blooms that are very sweet scented.

MORNING GLORY—Ipomoea

(a) Culture III, V or VII, 12'

Blue Star—(All American Winner) Beautiful sky blue with five deep blue mid-ribs forming a star. Early flowering. Pkt. 25c.

Heavenly Blue—Sky-blue flowers on a tall, neat climber. Flowers close in bright sun. Exquisite on fences. Pkt. 15c.

Pearly Gate—A shining white form of Heavenly Blue. Pkt. 25c.

Scarlett O'Hara—Large velvety scarlet flowers. Very showy. Pkt. 20c.

Mixed—Many lovely shades.

Moss Rose—See **Portulaca**

Mourning Bride—See **Scabiosa**

NASTURTIUM

(a) Culture III or V

Dwarf or Bush Kinds 1'

Golden Globe—Semi-double flowers of bright gold. Pkt. 15c.

Scarlet Globe—Fiery scarlet double flowers. Pkt. 15c.

Mahogany Gem—Deep velvet mahogany red double flowers. Pkt. 15c.

Gem Mixed—All colors. Pkt. 15c.

Single Mixed—Complete mixture of all colors in the well-known single type.

Tall or Vine Kinds 3-10'

Golden Gleam—Large golden flowers. Double and fragrant. Pkt. 15c.

Scarlet Gleam—Fiery orange scarlet flowers. Double and fragrant. Pkt. 15c.

Salmon Gleam—Delicate golden salmon double flowers. Pkt. 15c.

Glorious Gleam—A mixture of all the lovely colors of the Gleam series. Pkt. 15c.

Tall Single Mixed—The old single type in the tall growers. All colors.

NEMOPHILA—Baby Blue Eyes

(a) Culture II, 6"

Many cup-shaped sky-blue flowers on low spreading plant. Pkt. 15c.

NICOTIANA—Flowering Tobacco

(a) Culture I or II, 2-3'

Long-tube starry flowers. Fragrant at night. White or light pink mixed.

PAINTED TONGUE—See **Salpiglossis**

SALPIGLOSSIS

**PANSY**

(a) Culture I, II or VIII, 8"

Swiss Giants—Large flowering strain with fine range of gorgeous colors. Best of the improved pansies. Pkt. 50c.

TUFTED PANSY—See **Viola**

PERIWINKLE—See **Vinca**

PETUNIA

(a) Culture I or IV

Small Flowered, 10-14"

Balcony—Trailing kinds for use in window boxes and bedding. White, red, rose, or blue. Each. Pkt. 20c.

Blue Bee—A lovely violet blue. Pkt. 15c.

Cheerful—Clear salmon pink with rose veining in throat. Compact. Pkt. 25c.

English Violet—A fine purple-violet color. Spreading plant. Pkt. 20c.

Fire Chief—Brilliant red. All American Gold Medal Winner for 1950. The first flower to win this award in eleven years! Pkt. 35c.

Flaming Velvet—A velvety blood red. Best of its color. Pkt. 20c.

Glow—Rich carmine red flowers on a compact plant. Brilliant. Pkt. 25c.

Martha Washington—Ruffled flowers of pale pink, violet throat. Pkt. 25c.

Rose of Heaven—Best of the rose colored strains made famous by Rosy Morn. Color is slightly deeper and more uniform. Compact. Pkt. 15c.

Silver Medal—New 1949 All American Award. A lovely salmon. Good size flowers on compact plants. Pkt. 50c.

Large Flowered, 12-20"

America—Double carnation-like flowers of a deep rose pink. Pkt. \$1.00.

Burgundy—Huge single flowers of a rich wine red, white throat. Pkt. 25c.

Colossal Shades of Rose—1948 All-American. Large plants have huge flowers of light and deep pink shades. Very double with many frilled and fringed petals. Pkt. \$1.00.

Glamour—Huge ruffled blooms of a luscious salmon. Blooms early. Pkt. 25c.

Giants of California—Huge flowers of many fine pastel tints. Pkt. 25c.

Little Giants mixed—Compact plants with medium flowers in many new colors and shapes. Pkt. 20c.

Snow Storm—Large plain glistening white flowers with creamy shading in throat. Very beautiful. Pkt. 50c.

Theodosia—Large ruffled flowers of deep rose pink with golden throat. Very showy and lovely. Pkt. 25c.

PHLOX

(a) Culture II, 8-12"

Lovely clusters of showy flowers on low plants from early spring on. Easily grown. Many splendid colors.

Separate colors, each, Pkt. 25c.

Mixed, Pkt. 15c.

PINKS—See **Dianthus**

PINCUSHION FLOWER—See **Scabiosa**

POPPY

(a) Culture IV, (hp) VI, 1½-3'

Gartford—Pastel mixture. Long stemmed. Very rich. A most unusual giant flowering strain. Pkt. 35c.

Iceland mixed—Excellent perennial for borders and rock gardens. Large colorful flowers from ferny foliage. Pkt. 15c.

Oriental Scarlet—Huge red blooms in early summer from perennial root. Useful for bold color. Pkt. 15c.

Shirley, mixed—The easily grown, lovely annual poppy. Many bright colors. Grows easily and self-sows.

POPPY, CALIFORNIA—See **Eschscholtzia**

POPPY, MEXICAN TULIP—See **Hunnemannia**

PORTULACA—Moss Rose

(a) Culture, III or IV, 6"

Jewel—Huge crimson flowers. Much larger than old kinds. Pkt. 25c.

Single, mixed—Many brilliant colors.

Double, mixed—All double. Pkt. 15c.

POT MARIGOLD—See **Calendula**

RICINUS—See **Castor Bean**

SALVIA—Flowering Sage

(a) Culture I, 2-3'

America or Globe of Fire—The well-known Scarlet Sage that is a blaze of vivid scarlet in summer. Pkt. 25c.

Blue Bedder—Deep medium blue. Slender plant for airy effect. Use to lighten up thick heavy plantings. Pkt. 50c.

SALPIGLOSSIS—Painted Tongue

(a) Culture III, 30"

Mixed—Large petunia-like flowers of rich velvety colors, veined with gold.

SCABIOSA—Mourning Bride, Pincushion Flower

(a) Culture III or IV, 2'

Blue Moon—Large double flowers of deep lavender blue. Pkt. 15c.

Peace—Round double flowers of pure white. Fine for cutting. Pkt. 15c.

Rosette—Beautiful deep rose flowers with salmon shadings. Pkt. 15c.

Imperial Giants, mixed—Large globe-shaped flowers in a wide range of red, white, coral, rose and blue. Pkt. 15c.

Mixed—All colors of the old type.

SATIN FLOWER—See **Godetia**

SCARLET FLAX—See **Linum**

SCARLET SAGE—See **Salvia**

SCHIZANTHUS—Butterfly-Flower

(a) Culture II or IV, 1½'

Mixed—Small flowers shaped like multi-colored butterflies. Delicate cut leaves. Free flowering. Pkt. 25c.

SEA LAVENDER—Statice

(a) Culture I, 2'

Bonduelli—Bright yellow flowers. Useful when dried. Pkt. 20c.

Mixed—Small tubular flowers in branching spikes. Many colors. Pkt. 20c.

Suworowii—Bright rose flowers crowded on slender spikes. Pkt. 20c.

SPIDER PLANT—See **Cleome**

STRAW FLOWER—See **Everlasting Flowers**

SHASTA DAISY

(hp) Culture VI, 2'

Alaska—Largest of the Shasta strains. Big, white flowers with yellow centers.

SNAP DRAGON—See **Antirrhinum**

SNOW-ON-THE-MOUNTAIN—

Euphorbia

(a) Culture III, 2'

Bright green foliage edged with white. Effective for edging or contrast. Pkt. 15c.

STOCKS—Gilliflower

(a) Culture I or IV, 1-2'

Giant Imperial—Excellent double flowers on tall stems. Many bright colors. Pkt. 25c.

Beauty of Nice—Branching, with large double, fragrant flowers. Pkt. 15c.

Dwarf Ten Weeks—Low growing with strong spikes. Many fine colors.

SWEET PEAS

(a) Culture III, 3'

Early Spencer—Earliest of the many strains. Large colorful, fragrant blossoms. By variety or mixed. Pkt. 15c.

Late Spencer—Large fine flowers that flower in early summer. The standard ones for outdoor use. By colors or mixed. Pkt. 15c.

Margaret O'Brien—Salmon-coral diffused with an unusual luminous orange sheen. Pkt. 25c.

Ruffled Spencer—Wavy and ruffled petals give fine effect. Many fine colors or mixed. Pkt. 15c.

Perennial Sweet Pea—Large vine and large flowers. Useful on trellis or fence. Not fragrant. Blooms all season. New stems yearly. Pkt. 15c.

SWEET SULTAN

(a) Culture II or IV, 2½'

Mixed—Lovely colorful thistle shaped flowers. Easily grown.

SWEET WILLIAM—Dianthus

Barbatus

(hp) Culture VI, 1½-2'

Double—Double flowers crown the heavy heads of many colors. Pkt. 15c.

Single—Lovely single pinks in large flat clusters. Fine for cutting.

THRIFT—See *Armeria*

TICKSEED—See *Calliopsis*

TITHONIA—Golden Flower of the Incas

(a) Culture I, 6'

Fireball—Single dahlia-like scarlet flowers on tall plants. Pkt. 15c.

TRITOMA—Red Hot Poker

(p) Culture VI, 3-4'

Pfizer's Hybrids—Narrow tubular flower on tall spikes, orange red. Graceful grassy foliage. Not perennial under some conditions. Pkt. 15c.

VERBENA

(a) Culture I, 8"

Lavender Glory—Lavender with white eye. Large clusters. Fragrant. Pkt. 15c.

Mammoth White—Large heads of pure white. Useful for contrast. Fragrant. Pkt. 25c.

Scarlet—Flaming scarlet heads. Brilliant in beds. Pkt. 15c.

Blue Shades—Medium and dark blues in mammoth type. Pkt. 15c.

Mixed—Huge flower clusters, all colors. Ideal for beds and borders. Pkt. 15c.

VINCA—Periwinkle

(a) Culture III, 15"

Mixed—Colorful starry flowers on glossy-leaved, bushy plants. Does well in shade. Pkt. 15c.

VIOLA—Tufted Pansies

(hp) Culture VI, 6'

Mixed—Miniature pansies from neat plants. Flower all season. Many showy colors mixed. Pkt. 20c.

WALLFLOWER

(a) Culture I or V, 1½'

Mixed—Blood-red and yellow flowers. Resemble single stocks. Early and fragrant.

WILD FLOWER MIXTURE

(a) Culture II or III ½-3'

Old fashioned flowers in a fine mixture for all season flowering. Sow thinly and enjoy continuous flowers and delightful surprises. These are not wild flowers of the fields but a selection of garden flowers that gives a "wild" garden look when planted in a border. A good way to get acquainted with some of the unusual kinds of garden flowers.

ZINNIA

(a) Culture I or II

Small Types, 12-18"

Black Ruby—Compact, round little flowers of a deep velvety maroon. Lilliput type. Pkt. 15c.

Red Riding Hood—Deep scarlet flowers 1" across. Free flowering. Fine border plant of Lilliput type.

Lilliput pastels—Lovely soft colors in the miniature strain. Fine for borders or small bouquets.

Linearis—Single daisy-like type with small flowers in orange colors. Pkt. 15c.

Mexicana—Single and double flowers in varied and variegated colors.

Navajo mixed—Resemble Gaillardias in shape. Many colors in showy mixture. Medium size plants and flowers. Pkt. 15c.

Pumila Sunshine Tints—Dwarf plants with medium flowers in a wide range of soft colors. Pkt. 15c.

Scabious Flowered—Medium size flowers on a semi-tall plant. Resembles *Scabiosa* in shape. Bright colors mixed. Pkt. 15c.

Tom Thumb mixed—Lilliput type flowers on a very dwarf plant. For low borders and miniature displays. Pkt. 15c.

Fantasy—Medium tall plants with medium size flowers having shaggy petals.

Melody (orchid lavender), **Star Dust** (golden), **White Light** (white), **Wild-fire** (scarlet), and **Mixed**. Pkt. 15c.

Large Types, 2-2½'

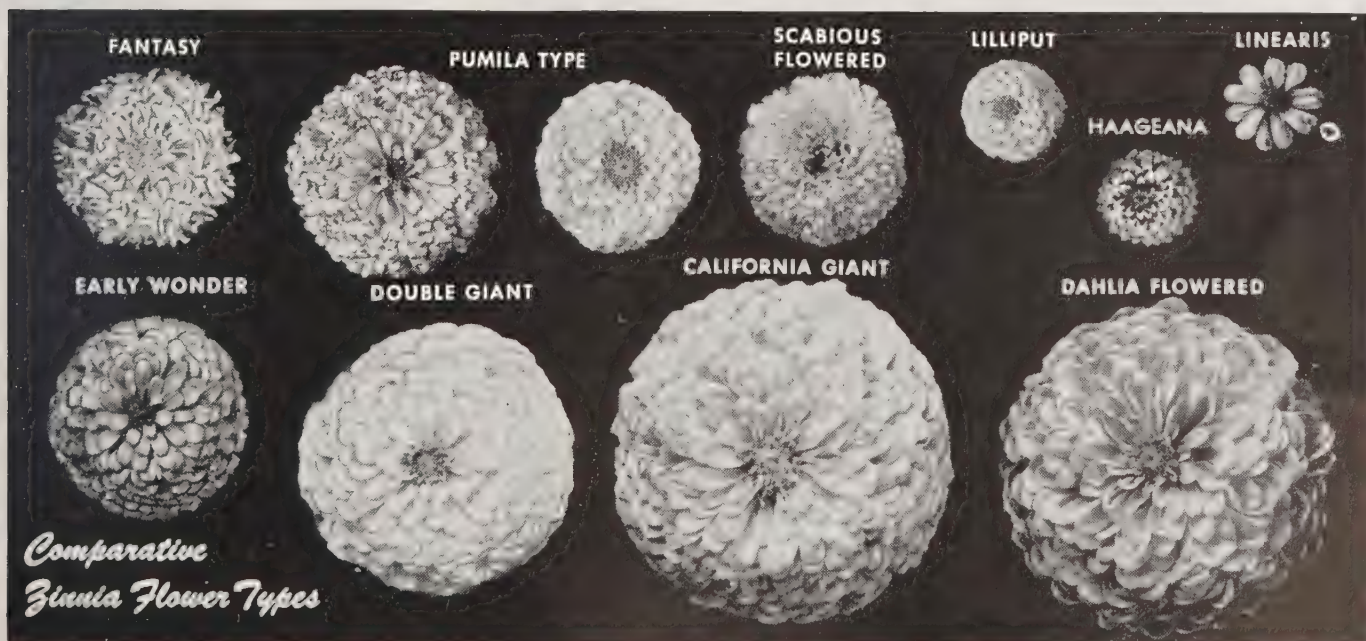
Crown of Gold—Lovely golden shades with deep golden base to the petals. A large type resembling California Giants. Pkt. 15c.

Super Crown of Gold Pastels—New, improved, with many pastel colors overlying the golden base. Pkt. 15c.

Dahlia Flowered mixed—Huge flowers in a bewildering range of bright and pastel colors. Pkt. 15c.

Giants of California, mixed—Mammoth flowers in many striking colors. Largest of all. Pkt. 15c.

Will Rogers—Dahlia type with deep scarlet color. A striking and popular variety. Pkt. 15c.



How? When?

As every gardener knows, good seed alone can't make a successful garden. No matter how good the seed, it needs proper feeding. Like any living thing, it must be nourished.

As seedsmen, we do everything in our power to bring you the finest of seeds. We select seeds with the right heritage, with the inborn qualities that are needed to win out in the battle every growing thing must fight.

But once our good seed is in your hands, the rest is up to you! So—in your plans to get the best possible results from our good seed, consider carefully the information on plant feeding which we give you here.

Actually, plant feeding nowadays is a rather simple, easy job. While plants need many different elements of food for best growth, all these elements can be provided by one complete balanced plant food such as Vigoro. Without odor or muss, the modern balanced plant food takes care of all the usual plant needs of the garden—and does it inexpensively.

As to the questions of "How, when, where and why"—most of the information you need can be told in a few words. The basic routine of plant feeding for the home garden and lawn is this:

PLANT FEEDING

For LAWNS:

Follow these 3 steps . . .

1. Check to see that grass is dry!
2. Apply evenly 3 pounds of complete plant food per 100 feet of area, either with a spreader or by hand.
3. Soak the plant food into the ground immediately after applying.

If water is not available merely work the plant food off blades of grass with back of rake. NOTE: If plant food is applied early, before growth starts, steps 1 and 3 do not apply. Early thaws and spring rains work the plant food into the soil.

For FLOWERS, VEGETABLES, BERRIES . . .

Apply complete plant food at the rate of 4 pounds per 100 square feet of area before seeding or setting plants. For established perennials apply around plants or along both sides of row early in Spring and at six to eight week intervals.

For TREES . . .

Make a series of holes 12 to 18 inches deep with a 2" soil auger or a pointed stick under the drip of the branches. Figure the plant food need per tree by measuring diameter four feet from the ground and allowing 3 pounds of complete plant food

Where? Why?

per inch of diameter. Fill hole with a mixture of half plant food and half soil or sand.

* * *

As to your choice of plant food: We recommend VIGORO because of its unexcelled balance and its long record of unfailing reliability.

Two more gardening aids by the makers of Vigoro

Gardeners in our area are getting a lot of help from two other gardening aids presented by Swift & Company, the makers of Vigoro.

These two gardening essentials are END-o-PEST and END-o-WEED. End-o-Pest provides all the protection most gardens need against chewing insects, sucking insects and fungus diseases. It comes ready to use in a dust gun applicator that's easy to refill with a refill cartridge. End-o-Pest is also available in large economical packages for use in standard dust guns. End-o-Weed is an improved selective lawn weed killer. It kills over 100 weeds, roots and all. And it is easy to apply with the new End-o-Weed Side Spray that applies diluted End-o-Weed to the side while you walk. No pumping . . . no wet feet. The Side Spray fits on an ordinary gallon glass jug. Ask us about these two great gardening aids. You'll find them a real help in making your gardening easier and more successful.

Year after year VIGORO develops humus in lawn soil



Vigoro helps develop vigorous root systems. Each year as part of the old roots decay, humus (organic matter) is formed in the soil—rich, fertile! Your soil becomes more capable of sustaining your lawn through all kinds of weather . . . a better storehouse for moisture and plant food.

What's more, the vigorous roots and the thick top growth that Vigoro helps produce actually tend to choke out weeds! For a lawn of lasting beauty, feed Vigoro regularly.



PLANT FOODS and SOIL CONDITIONERS

Whenever you buy plant foods, remember that the safe place to buy them is the seed store. As seedsmen, we know the plant feeding needs of our area. And our know-how is always at your service.

ALUMINUM SULPHATE—Used in creating acid soils needed for successful culture of Azaleas, Rhododendrons, etc.

BONE MEAL—All-purpose fertilizer, rich in nitrogen and phosphoric acid.

BLOSSOM-SET—Hormone spray. Prevents blossom-drop on Tomatoes, greatly increasing crop. Also causes high percentage of seedless fruit.

FRUITONE—The remarkable hormone spray that stops pre-harvest drop of fruit. Sprayed on flowers of tomatoes it makes a high percentage of the crop SEEDLESS! Also beneficial on beans and on flowers.

HY-GRO—Extra-highly concentrated plant food, quickly soluble in water. Excellent starter solution and all-around fertilizer.

HYPONEX PLANT FOOD—Can be used in dry or liquid form; teaspoonful makes 1 gallon. Contains Vitamin B1.

LIME (Hydrated)—Sweetens sour soil for lawns, and clover. Is used as a reducer and in combination of many insecticides; for whitewash, deodorizing.

NITRATE OF SODA—Very quick source of nitrogen. Hastens maturity of crops. Should not be applied until plants are well above ground.

PEAT MOSS—Fine winter protection for lawns; also as a mulch on strawberry, perennial beds, roses, evergreens, etc. When incorporated in the soil, it promotes growth and supplies humus.

PLANTABBS—Clean, white odorless plant food tablets for indoor or outdoor use.

ROOTONE—You can help cuttings to root faster by dripping them in this hormone powder before planting.

ROSETONE—New hormone product designed to reduce loss in transplanting rose bushes and to make them develop better root systems.

ROSE FOOD—A balanced combination of organic ingredients, selected for the particular "make-up" and sequence availability that roses need. Improves the color and size of your roses

SHEEP MANURE—An economical and effective balanced plant food. Weed-free and rapid in its action. Supplies an abundance of humus and all the essential plant-food elements.

SUPER PHOSPHATE—Aids plant nutrition and assists the plant to assimilate other ingredients. An efficient fertilizer element for lettuce, truck crops, cereal crops and alfalfa.

TERRA-LITE (VERMICULITE)—Use as mulch to protect plants during winter; doesn't mat down or become soggy. In Spring, work it around base of plants as soil conditioner. Unexcelled growing medium for flats; aids seed germination, speeds root development. Also excellent for storing root crops and bulbs.

TRANSPLANTONE—New Vitamin-Hormone stimulant effective in reducing transplant shock, and wilt of all kinds of plants or shrubs. Also effective in bringing about earlier maturity on tomatoes, lettuce, celery, peppers, tobacco and cabbage.

VIGORO—The complete plant food. Supplies all the elements growing things need from the soil. Because it offers such complete nourishment, Vigoro helps produce greater yields of finer flavored, more nutritious vegetables. Produces lovelier lawns and flowers. Clean and odorless.

PLANTABBS—Good for Everything That Grows

A Rich Meal of Nitrogen, Phosphates, Potash, Plus Vitamin B¹

Feed them PLANTABBS. If you don't get lovelier plants and flowers, and a greater yield of finer vegetables, you get your money back. PLANTABBS are clean, odorless, highly concentrated PLANT FOOD TABLETS which help produce sturdy stems, luxuriant leaves, strong roots and gorgeous blooms. 25c, 50c, \$1.00 and \$3.50 size boxes.

Fullton's PLANTABBS
PLANT FOOD TABLETS PLUS B1

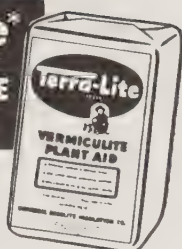
HYPONEX PLANT FOOD

Simply dissolve and water your plants. Grows superior plants, flowers, vegetables, indoors or out, in poorest soil—even in sand or water (Hydroponics). Clean, odorless. Complete and balanced. Won't burn. Results sure. 1 oz. makes 6 gallons.

	Retail
1 oz. pkt. (packed 72 to case)	10c
3 oz. can (packed 36 to case)	25c
7 oz. can (packed 24 to case)	50c
1 lb. can (packed 12 to case)	\$1.00
10 lb. drum, makes 1,000 gals.	8.00
25 lb. drum, makes 2,500 gals.	15.00
50 lb. drum, makes 5,000 gals.	25.00
100 lb. drum, makes 10,000 gals.	40.00



Terra-Lite
BRAND
VERMICULITE
PLANT AID

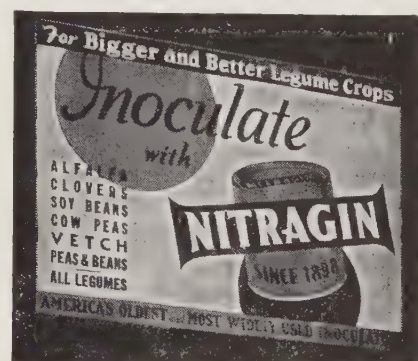


AMAZING NEW GROWING MEDIUM

Most talked about gardening product in years. Terra-Lite stores air and moisture for use by plants as needed. Has no equal for starting seeds—rooting cuttings—building lawns—conditioning soil—mulching—storing bulbs... countless other uses all through the year. Sensational results at low cost. 3 sizes. Buy a bag today. *Terra-Lite is a registered trademark.

LEGUME INOCULATION

Just as necessary for garden peas and beans, lima beans, sweet peas and lupines as for alfalfa, clover, etc. The nitrogen-gathering bacteria build up the soil, increase your yields. Inoculation is the cheapest form of crop insurance. Packages from the 15c garden size up to 5-bushel size.



ALFALFA (A)		SOYBEANS (S)	
Sweet, Bur, Hubam	Size	Size	Retail
Clovers		2 bu. each	\$.30
Size	Retail	5 bu. each	.50
1 bu. each	\$.50	25 bu. each	2.25
2 1/2 bu. each	1.00	30 bu. each	2.95
		(6-5 bu. cans)	
CLOVERS (B)		Beans (D)	
Red, Alsike, Crimson, White and Ladino.		Navy, Pinto, Wax, String, Kidney and Great Northern	
1 bu. each	\$.50	1 bu. each	\$.50
2 1/2 bu. each	1.00		
LESPEDEZA (L)		PEANUTS, COW PEAS (E)	
100 lb. size (Inoculates up to 100 lbs.)	\$.50	2 bu. each	\$.30
		5 bu. each	.50
		30 bu. each	2.95
		(6-5 bu. cans)	
PEAS, VETCHES (C)		LUPINES (All Varieties)	
Varieties)		100 lb. Size (Inoculates up to 100 lbs. seed)	ea. \$.50
100 lb. size (Inoculates up to 100 lbs.)	ea. \$.50		
		GARDEN SIZE—Peas, Beans, Sweet Peas, Lupines, Lima Beans and Edible Soybeans.	
		Enough for 8 lbs. seed—Price 15c each.	

HY-GRO SOLUBLE PLANT FOOD

(13-26-13)

For flowers, potted plants, vegetables and lawns

Brings a balanced diet right to the roots. Use according to directions on package for starter solution and transplanting. Easy to use.

3 oz. 30c—20 oz. \$1.00
—10 lb. \$4.50. Also in 25, 50 and 100-lb. sizes for estates and larger growers.

Ask for
FREE booklet

A PRODUCT OF McCORMICK & CO.

INSECTICIDES & FUNGICIDES

"PRICES

Subject to change"

As is usual in seed catalogs, we must notify you that prices are subject to change without notice. We shall, of course, make every effort to maintain our listed prices.

GARDEN SUPPLY PRICES NOT PREPAID

While prices quoted on garden seed include our shipping costs, this is not the case on our other lines. So, when ordering garden supply items by mail, please remember shipping costs are EXTRA.

ANTROL ANT TRAPS—Kills both sweet and grease eating ants.

ARSENATE OF LEAD—Controls practically all leaf-eating or chewing insects.

BLACK LEAF 40—Nicotine Sulphate 40% solution for controlling aphids (plants lice), thrip and soft bodied sucking insects.

BLACK LEAF 40 MOSQUITO-FUMER—New outdoor mosquito killer. Effective "smoke aerosol" deadly to mosquitoes.

BULB PROTECT—Repels moles, mice, wards off fungus diseases from bulbs in ground.

CALCIUM ARSENATE—Cheap quick-acting poison for potato bugs; leaf-eating insects.

BORDEAUX MIXTURE—Standard copper insecticide for controlling black spot, mildew, blight, other fungus diseases.

CERESAN—Controls covered smut and stripe of barley, oat smuts, and bunt or stinking smut of wheat.

DU PONT FLORAL DUST—Contains methoxychlor, and rotenone. Especially recommended for rose disease control; protection against insects.

DURADUST—A ready-to-use dust for home gardens, contains 5% DDT and 9% metallic copper. Particularly effective on rose chafer, leaf hopper and corn ear worm.

D X SPRAY—Economical spray for both sucking and chewing insects. Harmless to human beings.

LIME SULPHUR, Liquid—A dormant spray material against scale of all kinds.

LIME SULPHUR, Dry—A dormant spray to kill scale or use as a summer spray for control of fungus disease.

MILDEW SPRAY—Strong liquid spray for control of mildew, leaf spot and black spot on rose bushes, flowers.

MO-GO—Kills moles and gophers. Just place in runs. Results guaranteed.

PARIS GREEN—For control of chewing insects, particularly potato bugs.

PESTMASTER—Rose Treatment—All in one package, a pre-mixed, ready-to-use treatment for the control of the chief rose insects and diseases.

PHYGON-XL FUNGICIDE—Controls all leaf blights and fruit rot of Tomatoes, black spot of Roses, apple scab and many other plant diseases caused by fungi. A seed protectant to be dusted on Beet, Tomato, Spinach, Swiss Chard, Peppers and other seeds, before planting to prevent seed decay and "damping-off."

ACME GARDEN DUSTS AND SPRAYS

ACME GARDEN GUARD

(.75% Rotenone)

Widest range of all insecticides for the garden

Acme Garden Guard controls the widest variety of chewing and sucking insects of any insecticide on the market today. Non-injurious to humans, pets and animals. Use as dust or spray to control aphids, bean beetles, asparagus beetles, horn worm, tarnish plant bug, cabbage worms, currant worms, rose caterpillars, blister beetles and other common insects. 1 lb. sifter \$.45; 1 lb. pump gun, \$.60; also available in 4 lb. pkgs. and 50 lb. bags.

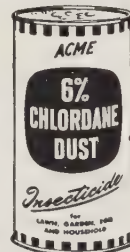


ACME 6% CHLORDANE DUST

Outdoors and indoors—for garden, lawn, house

For dusting in gardens and on lawns to control ants, cutworms, chinch bugs, chiggers, earwigs, slugs, snails, sowbugs, sod webworms, wireworms, white grubs, including Japanese beetle grubs, root infesting maggots and many others. In the home for cockroaches, silverfish, carpet beetles, crickets, etc.

1 lb. \$.50 4 lb. \$1.40



ACME ALL ROUND SPRAY



For roses, azaleas, other flowers, shrubs, vegetables and fruit trees. A new, modern, carefully formulated multi-purpose product designed to provide with one application the best available protection against both insects and fungi such as rose chafer, azalea flower spot, thrip, black spot, downy mildews, leaf spot, many rusts, Japanese beetle, leafhopper, flea beetle, aphid, cabbage worm and many others.

Suitable for dusting as well as spraying.
1 lb. Carton \$.95; 4 lb. Carton \$3.00.

ACME DURADUST No. 50



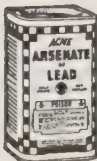
Contains 50% wettable DDT in micronized form. Controls codling moth, oriental fruit moth, leaf hopper, flea beetle, psyllid, potato bug, potato aphid, Japanese beetle, thrip, cabbage worm, rose chafer and many others. Use as a spray, like Arsenate of Lead, or extend with inerts for dusting. Highest strength possible in quality processing. 1 lb. \$.75; 4 lbs., \$1.75; also available in 40 lb. bags.

ACME BORDEAUX MIXTURE



The most widely used copper fungicide for preventing fungous spores gaining a foothold on plant surfaces. Prevents losses caused by blight, rot, mildew, scab, anthracnose, etc. Recommended for vegetables, flowers and ornamentals. Contains copper sulphate and lime in equal proportion for maximum protection and minimum burn. 1 lb. carton \$.45; 4 lb. bag \$1.15.

ACME ARSENATE OF LEAD



The favorite arsenical insecticide for the control of most chewing insects damaging shade trees, vegetables, berry bushes, vines, etc. Has no superior for fluffiness and bulkiness. Safe to use on tender foliage.

1 lb. carton \$.60
4 lb. bag \$1.40

ACME TOMATO DUST



A general garden insecticide and fungicide with special emphasis on complete tomato protection. Controls early and late blight as well as horn worm, fruit worm and flea beetle on tomatoes as well as on cucumbers, beans, cabbage, potatoes and many flowers such as hollyhocks, asters, roses, azaleas, etc. 1 lb. sifter, \$.50; 4 lb. pkg., \$1.15; also available in 50 lb. bags.

ACME LIME SULFUR (Dry)



For use on fruit trees, rose bushes and nursery stock after leaves have fallen and before they appear in the spring to protect against scale, peach blight, leaf curl and twig borer. For summer spraying against scab, root, blotch, red spider and mites. 1 lb. \$.49; 5 lb. \$1.85.

THE COMPLETE DORMANT SPRAY



KILLS
SCALE
APHIS
RED
MITE

THE NON-POISONOUS GARDEN INSECT SPRAY



KILLS
MORE
GARDEN
INSECTS

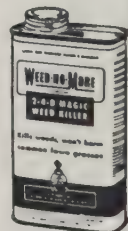
Spray every fruit tree, shade tree, shrub and vine with Scalecide in the Spring before buds start. Safe, simple, effective.

As soon as insects appear in the garden, spray with D-X. Kills both sucking and chewing insects. Dilutes 1 to 600.

WEED-NO-MORE

MAGIC WEED KILLER

2, 4-D. Rids lawns of ugly weeds such as dandelion, plantain, chickweed, ragweed, poison ivy, poison oak and many others without injury to common lawn grasses. Just mix with water and spray. 8 oz. bottle covers average lawn. The handy applicator to fit a gallon or half-gallon jug simplifies the job. 8 oz. \$1.00; Qt. \$2.98; Applicator \$.39.



RABBIT SCAT—Keeps rabbits out of the garden, protects bushes and trees, repels birds from grape vines. A repellent, not a killer.

RED ARROW GARDEN SPRAY—Contains Pyrethrum, Rotenone, Soap. Harmless to animals.

RED ARROW DUST—Use as spray or wash for fruits, flowers, vegetables.

RED RIVER POTATO MIX—Contains 9.5% Wettable DDT, 15.1% Metallic Arsenic, 25.7% Metallic Copper. Controls all insects which eat the leaves, suck sap, irritate leaf surfaces of cause disease infection. Acts as a stomach poison and by contact. High copper content.

SCALECIDE—Reliable spray for scale and soft-bodied sucking insects.

SEMESAN—Effective in controlling damping-off, scab, hard rot, etc.

SEMESAN BEL—For use on potatoes. Controls many seed-borne diseases.

SNAROL—An insecticide bait to combat snails, cut worms, sow bugs, grasshoppers.

SPERGON SEED PROTECTANT—A powder to be applied to seed before planting to prevent "Damping-off," particularly in cold wet weather. Recommended for Peas, Beans, Lima Beans, Corn and other seeds, it is easy to apply to the seed and non-injurious to the user. NON-TOXIC.

SULPHUR, DUSTING—For controlling powdery mildew, blight, black spot, rust and most rose diseases.

SULPHUR, WETTABLE—An improved sulphur which can also be used as a liquid spray.

SYNKLOL CHLORDANE INSECTICIDE—Controls ants, chinch bugs, grasshoppers, Japanese Beetles and many other insects; roaches, ticks and wire worms.

Rabbit Scat

Now you can keep those pesty, nibbling rabbits out of your garden—with Rabbit Scat! Rabbit Scat is a repellent, not a killer, does not hurt soil, plants, animals or people. It lasts through a number of storms and stays effective.

Rabbit Scat protects your bushes and trees all year . . . repels pigeons from lawns and buildings . . . keeps birds away from grape vines. Scatter Rabbit Scat around the outside of the garden and the rabbits stay out.



6 oz., \$1.00; 1 lb., \$2.50.



ANTROL-ANT TRAPS

Metal traps containing two types of material that attract and kill grease and sweet-eating ants.

Each15c



SNAROL
Cutworm Bait
Non-injurious to vegetation. Attracts and kills cutworms, snails, slugs, sow-bugs, earwigs.
1 lb., 35c;
2 1-2 lbs., 75c



Controls most chewing insects, sucking insects and fungus diseases. Packed in cartridge-refillable dust guns or spout pouring cannisters. Use with confidence on edible fruits and vegetables. Made by Swift, maker of Vigoro, it's

**ALL THE PROTECTION
MOST GARDENS NEED!**

STOP INSECTS

...use

DU PONT METHOXYCHLOR
50% WETTABLE POWDER

This new insecticide, because of its low toxicity to humans, can be used on vegetables right up to harvest time. Kills bean beetle, corn borer, potato beetle, Japanese beetle, flea beetle, cabbage worms and many others. Also safe for flowers.

Available in 8-oz. canister—75¢

DU PONT DDT

— 50% wettable powder. A highly effective form of DDT for insect control on many plants, lawns and around buildings.

1-lb. canister—75¢

PREVENT BLIGHTS

...use

DU PONT FUNGICIDE-A

— 65% Zinc Ethylene Bis Dithiocarbamate. New, better, safer disease control for vegetables and ornamentals. Stops early and late blight of tomatoes, potatoes; downy mildew of cucurbits. Stops various diseases on chrysanthemums, azaleas and camellias. (Not for roses.)

Available in 6-oz. canister—85¢

DU PONT "FERMATE"

—Controls rose black spot, powdery mildew, and rust. Many diseases of other flowers; fruit diseases such as apple scab.

8-oz. canister—75¢



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



ROSE TREATMENT

Offers rose growers — in a single packaged formulation—a pre-mixed ready-to-use product for control of the chief rose insects and diseases.
1/2 lb. can \$1.00 1 lb. can \$1.75



FLOWER TREATMENT

A pre-mixed insecticide-fungicide combination for protection against rusts, leafspots, anthracnose, scab and the control of many chewing insects. 1/2 lb. can \$1.00

A PRODUCT OF
MICHIGAN CHEMICAL CORPORATION, SAINT LOUIS, MICHIGAN

HOW TO BEAT BUGS & BLIGHTS

*on roses and
other flowers—*

**USE DU PONT
FLORAL DUST**

You'll have more beautiful flowers when you use Floral Dust. Contains "Fermate" and sulfur for black spot, powdery mildew, rust, methoxychlor and rotenone for Japanese beetles, rose chafer, aphids, etc.

Available in 8-oz. dust gun—\$.79
1-lb. canister— 1.15
4-lb. canister— 3.50

on vegetables—

**USE DU PONT
VEGETABLE GARDEN
DUST**

Safe to use right up to harvest time. Contains methoxychlor and rotenone to control most insects. Contains Zinc Ethylene Bis-Dithiocarbamate for diseases such as early and late blight of tomatoes, potatoes. Safe on cucurbits for downy mildew.

Comes in 3 sizes—8-oz. dust gun—\$.79
1-lb. canister— 1.15
4-lb. canister— 3.50



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

Which insecticide—when?

When you're in doubt about your choice of insecticides, ASK US! We generally know the right answer—and if we don't, we'll try our best to get it for you!



Black Leaf 40 kills aphids and similar sucking insects by contact and fumes. No burn. No stain. *Also delouses poultry.* Backed by 40 years of use. **Black Leaf Garden Dust** contains nicotine, pyrethrum, rotenone and a fungicide for insect and disease control. **Black Leaf Rotenone Dust** contains rotenone and sulphur blended on a special carrier material.

RED. ARROW

GARDEN SPRAY

Non-poisonous. Kills most chewing and sucking insects quickly, safely. 1 oz. makes several gallons of spray.



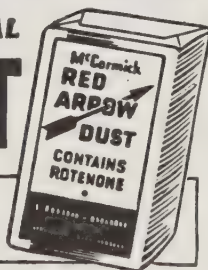
1 oz. .35¢; 4 oz. \$1.00; Pint. \$2.85

● Ask for free booklet
How to Fight Garden Insects

RED ARROW

AGRICULTURAL DUST

$\frac{3}{4}\%$
ROTENONE!



Non-poisonous—spray or wash.
Kills bean beetles, cabbage worms,
etc. Dust about every 10 days.

2 lb. . . . 60¢ — 5 lb. . . . \$1.35
50 lb. drum (1% Rotenone) 22¢
per lb.

A PRODUCT OF **MCCORMICK & CO.**

THE FACTS

about the newer Pest Controls

With the remarkable advances that have been made in the past several years in modern pest control chemicals, it is easier than ever for you to grow a bigger, better and more beautiful garden.

Thanks to modern scientific research, such potent chemicals as DDT, TEPP, chlordane, methoxychlor, 2, 4-D and 2, 4, 5-T and the recently-developed "lindane" are now available to home gardeners.

Multi-Purpose Sprays

From the home gardener's standpoint, perhaps the most important development in modern garden pest control is the combining of several of these chemicals into one multi-purpose dust or spray . . . so that many different kinds of pests can be controlled. All you have to do is to dust or spray regularly at seven to ten-day intervals . . . and you get control of most of the pests you'll find in your garden.

For the pests which do not yield to this treatment, science has provided many specialized sprays and dusts. These are all easy to use—and are available at your seed store—together with all the information you need.

Modern Dusts

If you prefer to dust, you have several good multi-purpose garden dusts to choose from. These dusts contain balanced combinations of modern insecticides and fungicides—but may also contain reliable old-type chemicals such as sulfur.

An example of a good multi-purpose garden dust is one that contains two insecticides and two fungicides—the most important ingredient being, of course, the potent new insecticide, **lindane**. This multi-purpose dust controls certain sucking, insects chewing insects, wireworms and other soil insects; ants, earwigs, spiders; and also such plant diseases as mildew, black spot and rust.

Another example is a general flower and rose dust. This is especially formulated for your roses, other flowers, ornamentals and shrubs. It is a combination of several chemicals, two of which are lindane and DDT. This dust also is effective in controlling sucking, chewing and soil insects; ants, earwigs, and many plant diseases.

Modern Sprays

If you prefer to spray your flowers and other garden plants, there are modern multi-purpose garden spray sets and rose spray kits you can use. These consist of several bottles, each containing one of the modern insecticides or fungicides. You combine them in your sprayer according to the directions and you get multi-purpose control of both insects and fungus diseases.

In one such spray set, for example, you will find a bottle of modern insecticide

spray, a bottle of the reliable older-type oil spray, and a bottle of copper fungicide spray for powdery mildew. In another spray set you'll find a bottle containing the newest of garden insecticides—lindane, and a bottle of a recently-developed fungus spray that has been doing wonders in controlling powdery mildew, rose rust and peach leaf curl. In addition, this particular spray set contains one of the new-type garden hose sprayers that is designed to make your garden spraying as easy as watering. You just connect the sprayer to the end of the garden hose and turn on the water to spray.

Modern Garden Baits

When it comes to controlling such garden pests as snails, slugs and cutworms, you have another improvement over the old-style meal baits in the modern pelleted-type of bait. The pellets contain metaldehyde-arsenic poisons and give multi-purpose protection to the young, succulent growth of your garden plants.

Modern Weed Killing

When the rains come, weeds start coming up in the driveway and paths, along the curb, among the patio bricks, along the fence and garage, and in other places where you don't want any vegetation to grow.

You can now keep these places free of weeds easily and quickly—without the old-fashioned method of hand hoeing—simply by using a modern weed killer containing arsenic trioxide. This chemical kills weeds and also sterilizes the soil so no vegetation will grow for a year or two. You simply apply it to these places with a sprayer or an ordinary sprinkling can. An important feature to home owners is that the chemical is non-inflammable and can be used to reduce "dry-weed" fire hazards.

New 2, 4, 5-T Kills Brush

Latest of the hormone-type chemicals is new 2, 4, 5-T. This chemical is even more potent against broad-leaved weeds than 2, 4-D and is especially effective against hard-to-kill perennial weeds and brushy plants. If you want to get rid of poison ivy, poison oak, willows, sagebrush or similar brushy weeds, just spray or paint them with a 2, 4, 5 brush killer.



NEW ANT KILLER

Controls all species. They do not have to eat it. Kills by contact; vapors ingestion. Gives complete clean-up within 24-hours. Ideal for home and gardens. Contains 5% CHLORDANE.

6-oz. sifter can.....35c
1-pound sifter can.....75c

NEW (all-in-one) FRUIT TREE SPRAY

for the man with a few fruit trees

Nothing else needed. Controls all insects and diseases of fruit trees. Contains 2 toxicants, 2 fungicides. Highly concentrated. 3-ounces makes 5 gallons of spray.

1-pound can.....\$1.00
1-pound bag.....\$3.25

Niagara FARM AND GARDEN BRAND



POMO-GREEN

WITH NICOTINE

The leaf-green dust or spray for effective control of black spot, mildew, aphids, and many chewing insects on roses and other flowers.

1 Lb. Can \$1.00 5 Lb. Can \$3.85



KOLO FRUIT TREE DUST OR SPRAY

A highly efficient and safe insecticide-fungicide combination for home fruit growers.

Apply as a dust or spray for protection against the most important insect and disease pests of peaches, apples, pears, plums.

1 Lb. Bag 55c 3 Lb. Bag \$1.35



SOILFUME CAPS (100% Ethylene Dibromide)

The newest and simplest method of fumigating soil against nematodes and wireworms. "Just drop a capsule."

100 capsules treat 100 sq. ft.
100-Capsule Bottle \$2.00
200-Capsule Bottle \$3.25

WEED KILLERS

Our week killer department, as usual, is keeping right up with the times. And that's saying a good deal, nowadays, when miraculous developments in weed killing are coming so fast.

Ever since the new selective weed killers began to appear, we have kept in close touch with leading authorities on this work. Therefore, we KNOW the new weed killers thoroughly, and can safely advise you about their use.

For weeds that are not controlled by 2, 4-D, we have all the other good killers you need, including:

AMMATE WEED KILLER. Effective for control of poison ivy, ragweed, Canada Thistle, and other troublesome weeds.
NON-SELECTIVE WEED KILLER (Acme)—A quick acting arsenical product that destroys weeds and all other vegetation. The proper killer for weeds in drive ways, tennis courts, paths, and all areas which must be kept free of plant growth. Creates a sterile soil condition for a long period.

KILL Crab Grass

WITHOUT DESTROYING *Lawn Grass*

ZOTOX



Rid your lawn of unsightly Crab Grass and enjoy the beauty of smooth, luxuriant turf. ZOTOX kills Crab Grass in 3 to 5 days without destroying good lawn grasses. Easy to use—simply dilute with water and spray it on. A 16 Oz. bottle makes 10 gals. and treats 2000 sq. ft. or more. Tested and recommended by leading turf experts. Proved by years of success. Prices: 8 Oz. bottle \$1.00, 16 Oz. \$1.50, 32 Oz. \$2.50, 5 lbs. \$4.50.

WEED BURNERS

For some of the toughest weed problems, there's nothing better than a good weed burner. The extremely hot and concentrated flame is totally destructive. It consumes not only weeds but destroys insects, too. It can burn out stumps and even crack rocks.

Once you have used a good weed burner, you'll wonder how you ever got along without it!



Famous No. 99

AEROIL

FLAME GUN

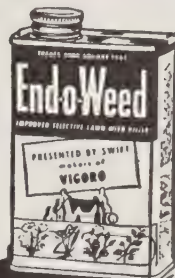
Kills all weeds with fire

Endorsed by leading agricultural authorities. 2000° F. flame kills stalks, seeds and roots. Destroys insects, cracks rocks, burns out stumps... 99 other uses. Burns only 6% kerosene and 94% air. OUTFIT INCLUDES 4 gal. all-welded tank, brass pump, 60 lb. air gauge, 7' oil resisting hose, bronze valve, and seamless steel removable coil burner. Nothing else to buy. Guaranteed for a full year. (Spray attachment if desired, \$3.50 extra.) PRICE AEROIL No. 99 SENIOR FLAME GUN, \$22.

USE End-o-Weed TO Spray WEEDS AWAY

● Destroys weeds, roots and all, quickly. Kills dandelion, chickweed, plantain and over 100 other lawn weeds.

Presented by Swift



THE WEED KILLING MIRACLE

NEW IMPROVED WEEDONE.

Contains the powerful 2,4,5-T and 2,4-D

Now Weedone kills woody plants as well as dandelions, plantains and other lawn weeds, without killing grass. It kills poison ivy, poison oak, the brambles (blackberry and raspberry), honeysuckle and over 90 other woody plants. Sprayed on top and sides of tree stumps, it prevents resprouting.

The new, improved Weedone does not give off vapors that cause injury to rose bushes, tomatoes, flowers or ornamental shrubs. Harmless to humans and animals.

8-oz. can \$1 1-gal. can \$6.95
1-qt. can \$2.75 5-gal. can \$25

Weedone Plastic Applicator. Cap makes handy 1/2-oz. measure and fits any screw-top gallon jug. All plastic; no sharp metal edges to cut and scratch hands.



2, 4-D for the farm

Now that practically everybody is using 2, 4-D preparations for lawn weed control, the 2, 4-D spotlight is centered on farm uses.

2, 4-D, properly used, is one of the greatest of all farm developments. Everywhere, farmers are getting amazing results in time and money savings and increased yields.

We can help any user to plan wisely in using 2, 4-D. Just ask us!

"Green Thumb"

Garden Gloves



They really have a green thumb and their chamois-like fabric is impregnated with a special treatment which makes them dirt-repellent and remarkably long wearing. Every gardener needs a pair of these attractively styled gloves to protect her hands. Washable, non-shrinking.

Sizes small, medium and large **79c**

MASTERS FERTILIZER MISER

Sows Fertilizer and Grass Seed Evenly—Saves Plant Food—Saves Seed



Every Ounce Controlled
New design spreader with fingertip microscopic control; years ahead in ease and accuracy of operation.

Three Home Lawn Models

25S Steel wheels, 20 lb. cap.	\$6.75
25D Rubber tires, 20 lb. cap.	\$7.75
30 Rubber tires, 50 lb. cap.	\$10.75
For larger users—estates, golf courses, etc.	
241S—Steel wheels, 24" 75 lb. cap.	\$27.50
241D—Rubber tires, 24" 75 lb. cap.	\$35.00
361—Steel wheels, 36" 120 lb. cap.	\$37.00
361D—Rubber tires, 36" 120 lb. cap.	\$44.00
361SD—Stainless steel bottom, 36", 120 lb. cap.	\$52.75

MASTERS PLANTER COMPANY
Benton Harbor, Michigan

BEMIS

EROSIONET



Prevent seed washouts, grow beautiful lawns and terraces with one seeding by using this open-mesh woven paper fabric to hold seed and soil in place.

GARDEN SUPPLIES

If you want to **ENJOY** your gardening . . . if you want better results with less effort . . . we can help you in many ways. We know which tools are best for each job—and just which of the new "gadgets" are really good. Our selection of garden-aids is sound, and sensible. We choose each item for just one of two reasons—improved results or saving of effort.

That's why gardeners can shop with confidence here!

BIRD HOUSES AND FEEDERS

Window Bird Feeders—Provides an opportunity to study your bird companions from your window. Ideal for shut-ins and a real companionship for any bird lover. **Bird Houses**—A great deal of pleasure can be derived from the birds that will be attracted to your yard by putting out a bird house or two. We carry many types and styles for bird lovers to choose from.

WILD BIRD SEED MIXTURE

Feed your feathered friends the year round with this tempting mixture. All types of wild birds relish this seed. Don't forget to give them plenty in the winter months.

GARDEN GLOVES

Garden Gloves—Protect your hands—wear gloves in your garden! Canvas or leather, in sizes for men and women.

GARDEN HOSE

VISIT OUR STORE for our newest offerings. Garden hose is now available in good quality and quantity.

LABELS

Pot or Garden Labels (Wooden)—Used for marking plants in pots or seed flats. 4 inch, 6 inch, 12 inch.

Wood Tree Labels, Wired. Painted wooden labels equipped with wires, for marking trees or shrubs; also used extensively for labeling dahlia tubers.

PLANT BANDS

Square bands hold almost twice the number of plants as round pots of the same size. 2 in. size, packet of 30, **25c**. (Ask for prices on larger sizes and quantities.)

PLANT SUPPORTS

Bamboo Stakes—Green, pencil-thickness. 2 ft, 3 ft., 4 ft.
Dahlia or Garden Stakes — Wooden — Painted green. Strong and durable. Almost rot-proof. Will last several seasons. For supporting dahlias, young trees, etc. 4 ft., 5 ft., 6 ft.

POTS AND SAUCERS

Standard Earthen Flower Pots. Many sizes, from 2½ in. to 12 in. diameter.
Earthen Flower Pot Saucers. 3 in. to 12 in.

Red Paper Pots. Excellent for growing seedlings or for packing plants for shipment. 2¼ in. to 6 in. diameter.

HOTKAPS



Patented individual hot-houses protect seedlings, young plants during critical period of root establishment against FROST, HOT SUN, STORMS, INSECTS. Hotkaps ripen plants 3 weeks earlier, increase **GARDEN PACKET of 25, only 70c. Setter free.**

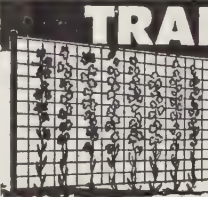
TWIST-EMS



Strong, dark green "invisible" tapes with wire reinforcing — protect stems, permanently support annuals, perennials, vines, shrubs, and vegetables speedily and permanently. Box of 200, 4-inch size 25c; box of 100, 8-inch size 25c; box of 100, 16-inch size 50c.

NEW! Pkg. of 50, 8-inch size 15c; pkg. of 35, 8-inch size 10c.

TRAIN-ETTS



Ideal support for SWEET PEAS, GARDEN PEAS, FOLE BEANS, CUCUMBERS, TOMATOES. Hung in 5 minutes. Doesn't rot like string, nor burn tendrils like wire. 3 sizes—60-inch x 72-inch, 85c; 60-inch x 96-inch, 85c; 60-inch x 180-inch, \$1.25.

DOUBLE DUTY

PLANT FOUNTAIN

The Ideal Bulb Sprinkler for Home and Garden

- Clean
- Handy
- Attractive

LASTS Indefinitely—curved stem and detachable sprayer are made of plastic materials (various colors). Bulb of quality green rubber.

Preferred among plant fanciers—The New Double Duty Plant Fountain is greatly preferred to the clumsy water-pitcher or old fashioned watering can.

101 Uses—Plant growers and seedsmen say "It's tops!"



Price **\$1.00**

Attractively boxed

Protects your GARDEN

SCARE-AWAY

the modern scarecrow
Shiny aluminum strips
crackle and flash. Scares
birds away. Easy to use.

Pkg. of 10 only **25c**

for Your Garden
"Quick-ties"

Round cushion, wire center
"Quick-ties" are weatherized
with resin to last an entire
season.

Pkg. of 80 only **25c**

See Scare-Away at our store

You have to see SCARE-AWAY to appreciate it. Doesn't harm the birds, but just makes them shy away! The reflected light and crackle and rattle do the trick!

GARDEN TOOLS

The first time you get into your tool shed or garage, or wherever you keep your garden tools, look them over! Try to remember how long it has been since you first brought them home. Then—if you want a real thrill—come into our store and see what the modern tool designers have done for you!

Here is a very brief outline of tools now available. But, better yet, come in and see for yourself.

CULTIVATORS, Speedy—4 sharp curved tines, 4 1/3 ft. handle.

Norcross—Adjustable steel teeth.

Hand Cultivator Weeder—3 or 5 prong.

FORKS, Spading—4 tines, D handle, light and heavy weight.

Hay Fork—Bent handle, 3 or 4 tines.

HOOKS, Grass (Sickles)—Various styles, well balanced designs. Wood handles.

Potato Hooks—4 broad tines, tumbled.

SHEARS, Grass—Pinch-proof handles.

Hedge Shears—8 or 9 inch blades.

HOES, Field or Garden—Various styles.

Onion Hoe—Square top pattern.

Scuffle Hoe—8 inch blade; straight handle.
Warren Hoe—Pointed steel head.

KNIVES, Asparagus—10" with V-shaped point.

Budding, Propagating, and Pruning Knives. See our selection.

Edging Knife—Half-moon blade.

SCYTHES, Grass, Weed and Bush—Best crucible steel. Visit our display!

SHOVELS, Square Point—Long and D handles.

Round Point Shovel—Long D handle.

RAKES, Steel, Curved Tooth—Straight handles; teeth on head 1/4" thick.

Steel, Straight Tooth Rakes—Level head.
Wood Rakes—Rigid and strong.

Bamboo Rakes—Fan shaped, strongly made.

Steel-Broom-Rake—Flat, spring-steel teeth.

PRUNERS, Tree—8 ft., 10 ft., 12 ft.

Pruning Shears—Again available in several styles.

Flower Gathering Shears—They cut the stem and hold the flower for you.

SPADES, Square Point—Flat Blade, D handle.

TROWELS—All-Steel Garden—Made of one piece of rigid steel; shaped ventilated handle.

Transplanting Trowel—6" blade of solid steel.

WEEDERS, Hand—3 steel prongs; short handle.

Lawn Weeder—Curved forged-steel blade.
Weeder and Hoe Combined—A labor saver.

Dandelion Weeder—V-shaped design.

Planet Jr.

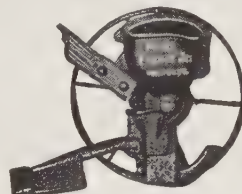
GET MORE DONE WITH LESS EFFORT



No. 25 Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow.

This machine can do many jobs for you, quickly and efficiently.

Planet Jr. Single and Double Wheel Hoes have been designed by practical men to do the proper kind of work—the way you want it done.



Planting with a Planet Jr. Seeder has many advantages. The No. 35 Seeder Attachment is ideal for a small garden.

Miles of walk are edged with Planet Jr. Edgers—neatly and with minimum effort.

PLANET JR. Garden Trowels fit naturally in your hand. Bulb Trowel is extra long with three notches 3, 4 and 5" from tip, to control planting depth.



GROWTH AIDS

Plant hormones, the modern garden wonder, can do many amazing things. They stimulate seed germination, make cuttings root faster, give you better seedlings, help transplanting by reducing shock and wilt. They stop fruit and blossom drop, produce better tomatoes, beans, etc., and help in many other ways.

But, for the best results, be sure you have the right hormone for each purpose! We have them all and can advise you about their correct use.

NO-SEED HORMONE
Blossom-set

FOR TOMATOES



Grow EARLIER, larger, meatier, more delicious TOMATOES, more on each plant, with this approved plant hormone. Just mix with water and spray. Stops blossom-drop; makes blossoms set fruit chemically. Tomatoes ripen up to 3 weeks earlier. Fruits are larger, firmer, more delicious. Many are SEEDLESS because fruit is set chemically, not by pollen. Use on STRAWBERRIES, peppers, cukes, others. Tested by USDA, leading Universities, Fla., Colo. Expt. Stations. New low prices. 4 oz. bottle (makes 1 gal.) 75c; Pint (makes 4 gal.) \$1.75; Agric. Size (8 oz. makes 50 gals.) \$5.95.

FASTER,
Surer ROOTING

for cuttings, seeds and bulbs

ROOTONE®

the plant hormone powder

Rootone stimulates the natural tendency of seeds, cuttings and bulbs to put out roots. Rooting is faster and heavier, resulting in bigger, earlier plants. Endorsed and used by leading growers everywhere.

Trial packet, 25c • 2-oz. package, \$1
1-lb. can, \$5

TRANSPLANT
SAFELY

TRANSPLANTONE®

Transplantone reduces shock and wilt when seedlings and plants are moved. Stimulates root growth so that fewer seedlings die and more come to early, healthy maturity. Used to water plants, shrubs and trees, Transplantone encourages growth and bloom.

1/2-oz. packet, 25c • 3-oz. package, \$1
1-lb. can, \$4

LOVELIER ROSES



(TRADEMARK)

Before setting out rose bushes, soak bare-rooted plants in Rosetone solution. Also water established plants with Rosetone. Plants take hold quickly and bear finer, earlier roses. Indispensable for the rose enthusiast.

1/2-ounce package, 25c
3-ounce can, \$1

MORE
TOMATOES!

FRUITONE®

Spray Fruitone at blossoming time and each plant will set more fruit and bear more big, meaty tomatoes. Spray Fruitone for bigger crops of beans and lima beans, too. The dollar package makes 25 gallons of spray.

2/5 oz. packet, 25c • 2-oz. package, \$1
12-oz. can, \$5



NATURAIN From 2-inch trickle to 25-foot spray, at will! April showers anytime of year—with this marvelous new method for watering lawns and gardens. No constant shifting . . . no water waste. Connects in a jiffy. Comes in 5 foot units, weight only 12 oz. Use 5 ft. to 30 ft., according to size of your garden. Primary unit, \$2.95; extension units \$2.75 each.



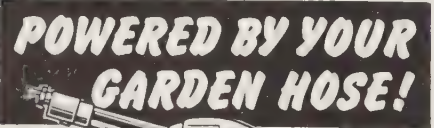
A precision, low angle sprinkler. Highest point of stream only 3 ft. above ground. Working parts bronze and stainless steel. Waters scientifically at any pressure from 5 lbs. up. **Only \$6.75**

Fair Traded



A slow swinging fan of gentle penetrating rain. Covers 40' x 50' at 35 lbs. pressure. **\$18.95**

Fair Traded



Hayes Jr. GARDEN SPRAY GUN

Full 3-gal. capacity. Delivers wet, fan-shaped spray in proper proportion, up, down, sideways. Special long-stream head for trees. Precision-built for years of service. **\$6.95**

Hayes FERTL-RAIN

Fertilize while you water! Lift thumb to water, lower thumb over vent to apply liquid fertilizer, lawn moth control, weed killer. Holds equivalent of 15 gals. solution. No moving parts. **\$2.45** Built to last!



Hayes SUDZIT CAR WASHER

Soaks, applies dirt-lifting suds, rinses, in one operation! For cars, porches, screens, etc. Includes enough detergent to wash 24 cars, applicator, sponge. **\$4.95**



Let Us Show You These and Other Famous Hayes Products
HAYES-ETTE • HAYES SPRINKL-AIR NOZZLE • HAYES HAN-D SPRAYER

DOBBINS Superbilt Sprayers and Dusters

BIGHEAD SPRAYER



No. 44 GS

4 gallon galvanized steel tank, seams electric welded. 4-3/4" opening for easy filling and cleaning. Patented self-lubricating plunger—more air per stroke. Handles all spray solutions perfectly, including DDT and weed control chemicals. Equipped with 3' synthetic hose, 2' brass angled extension and trigger-quick spray lock. Extra disc for flat-spray.

HAND DUSTER



No. 132

The most efficient hand duster ever made. Highly recommended for applying Pyrethrum, Rotenone and Derris Root dust insecticides. A uniform discharge down to the last particle of dust. Tested and proved for all garden and field crops. Has 2 ft. extension, patented two-way cap for dusting top and underside of leaves. Capacity 1 lb.

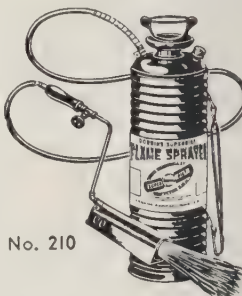
DELUXE GARDEN SPRAYER



No. 8

2 gallon galvanized steel tank of exclusive oval design. An attractive, light weight sprayer recommended for DDT solutions, weed control chemicals and all insecticides and disinfectants. Equipped with 3' hose, 1' curved brass extension and trigger-quick spray lock. Extra disc for flat spray.

FLAME SPRAYER



No. 210

Kills weeds and grasses. Burns rubbish and brush. Disinfects poultry houses, and yards, rabbit hutches. Heats and thaws. Flame temperature 2,000° F. Average fuel consumption 1 gallon per hour. Heavy Galvanized 4-gallon steel tank with electric welded seams, tested for high pressure. Heavy steel welded torch.

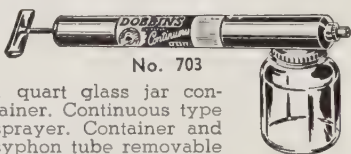
FUN-L-FILL SPRAYER



No. 21G

3 1/2 gallon galvanized steel tank, seam welded with Fun-L-Fill top for ease and economy in filling. Self-lubricating plunger. Quick air release protects operator. The highest quality low cost compressed air sprayer. Equipped with 2' hose, 2' curved brass extension and trigger-quick spray lock. Extra disc for flat spray.

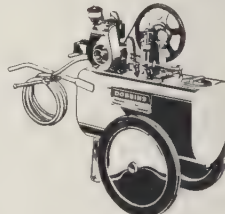
CONTINUOUS HAND SPRAYER



No. 703

1 quart glass jar container. Continuous type sprayer. Container and syphon tube removable for cleaning. For all insecticides, chemicals and disinfectants free from sediment. Patented brass nozzle.

POWER SPRAYER



No. 4240R

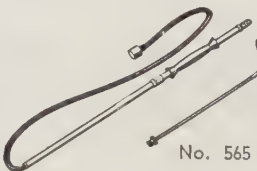
A portable, high-pressure, light-weight spray outfit capable of handling all spray jobs for the individual owner and grower. Tank capacity is 25 gallons. Equipped with 1 1/2 GPM pump which develops 250 lbs. pressure. Only 18 1/2" wide, 12 1/2" of 3/8" high-pressure hose. Adjustable spray gun.

BUDGET SPRAYERS



No. 24 G

Expertly built compressed air sprayers for all spraying tasks around the home and farm—offered in 2 1/2 and 3 1/2 gallon tank sizes. Fun-L-Fill tops with cam locks. Extra discs for flat spray.



No. 565

SPRAY WAND

A sprayer amazingly easy to use. Has adjustable nozzle making it ideal for countless uses. Excellent for spraying plants, shrubs, trees, buildings; for applying disinfectants, whitewash, cold water paints; for washing windows, cars, boats; fine as emergency fire pump or bilge pump. Nozzle adjusts to a fine spray or to a solid stream 35-40 feet long.



No. 80

FLAT SPRAYNOZZLE CAP

Interchanges with regular nozzle cap on all sprayers. Recommended for DDT and weed control chemicals.



26 G

No. 24G Sprayers: 3 1/2 gallon capacity, 20" hose, 20" curved brass extension, trigger-quick spray lock.

No. 26G Sprayer: 2 1/2 gallon capacity, 20" hose, 12" curved brass extension, trigger-quick spray lock. No carrying strap.



How? When? HOME GARDENING GUIDE Where? Why?

GLADIOLUS

Gladiolus are among the easiest of all flowers to grow. But while they stand neglect better than most plants, they also respond beautifully to proper treatment. So it is well to note these brief points: Soil should be well drained, sandy loam, preferably where no glads have been grown for the past 3 years. Cultivation to a depth of 18 inches is desirable. Full sun is best, although they do fairly well in partial shade. Glads may be set out as soon as frost is out of the ground, but extra-early planting gains little. A succession of plantings about ten days apart gives a long blooming season.

Depth of planting should be no more than 4" in heavy soil and 5 to 6" in light, sandy soil. Space bulbs 3" apart in rows 18 to 30" apart. Be sure to eliminate air pockets under the bulbs.

Place bulbs in a well worked trench in staggered or zig-zag row—and cover at first with about two inches of loam. When shoots begin to appear, work balance of loam into the trench.

Watering is important. Glads need an abundance of moisture, especially after the plant is well developed.

DAHLIAS

Any reasonably careful gardener can grow dahlias easily and successfully.

Soil needs of dahlias are no different than those of a good vegetable garden. Drainage and porosity are important.

Fertilizing calls for nothing more than a good balanced commercial fertilizer.

Planting is simple. Set stout stakes first. Plant the tuber in a hole 6 inches deep, with eye up, and neck near stake. Cover with just enough soil to hide the tuber. As the eye grows, keep filling in soil.

Culture. Cultivate frequently for about the first 10 weeks. Do not cultivate when flowers are in bud or bloom.

Allow only one main stalk to grow. When stalk is about 10 inches high, pinch out the center just above the 2nd pair of leaves. When buds appear, pinch out all except the central one. Also pinch out all new lateral shoots except the two nearest the main stalk. This helps produce large blooms on low, bushy plants and encourages long stems.

CANNAS

While cannas will tolerate cold soil, they usually do not start growing until hot

weather comes. If planted in round beds, you will need 37 plants for a 10 foot bed (18 plants on the outside, 12 in the second row, six for the third row and one in the center). A 7 foot bed will use 19 plants, with 12 plants on the outside row, six for the middle row and one plant in the center.

FANCY LEAVED CALADIUMS

These spectacular foliage plants are particularly valuable because they do well in shade. Start them in a mixture of half sand and half leaf mould at a temperature of over 70 degrees. When the roots are well-developed and the shoot is beginning to show, pot up in rich soil. Set out in the garden when weather is warm and settled. Elephant ears can be planted directly in soil out of doors, but the weather must be warm and settled, otherwise they rot.

LILIES

Even the swamp lilies will not tolerate wet feet; all must have perfect drainage. Yet they like a moist, cool soil. This means that liberal quantities of old well-decayed compost is almost essential for lilies.

POMPON DAHLIAS

CACTUS DAHLIA



DAHLIA

Formal Decorative



AN INVESTMENT THAT PAYS GOOD DIVIDENDS

Few garden flowers pay such high dividends as bulbs and tubers!

Lasting for years . . . they return your investment over and over . . . by giving so much beauty for such little care, or cost, or effort.

WHEN IS A "BULB" NOT A "BULB"?

Do you know the difference between **true bulbs, corms and tubers**? A true bulb is a bud, wrapped with fleshy scales which are the bases of leaves. Each bulb must have a period of dormancy, during which time the new plant—in all its details of leaves, petals, stamens, and pistils is formed.

CORMS resemble true bulbs in appearance, but the **embryo flowers are not formed** within the heart of the corm itself. They are developed rather by the corm's hoarded supply of nourishment. The corm differs also from the true bulb, in that its life is for one season.

TUBERS differ from true bulbs in that they are **underground stems** with eyes or buds on the surface. While **some** tuberous roots exhaust their energy in one season, and leave the newly developed roots to carry on, **others rebuild their energy**, increase in size, and give bloom the next season.

PROPER BULB PLANTING

Take special care to plant your bulbs the right depth, as shallow planting causes much failure in successful bulb growth. While proper planting depth varies with soil conditions, you'll be safe in following the rule of covering the top of the bulb with soil equalling three times its greatest diameter. In preparing the planting pocket for your bulbs, be sure the bottom is broad enough to permit the bulb base to rest on the soil. If an air pocket is left, the roots are quite likely to dry out before the bulb has had a chance to start its growth.



BULBS AND TUBERS FOR SPRING PLANTING

Gladiolus

Bagdad—Smoky old rose, deeper at edge of throat, lighter in throat. 6 to 8 immense blooms open at one time.

Beacon—Clear bright scarlet, with large creamy throat blotch. 8 to 10 medium size florets, moderately ruffled.

Bit o' Heaven—Very nice orange with yellow throat. Opens 9 to 12 medium sized blooms on tall, straight spike.

Blue Beauty—Light blue, edges of peals lined with violet-blue. Throat somewhat lighter on upper petals.

Dream o' Beauty—Large rose red. A very popular shade. Tall strong grower.

Elizabeth the Queen—Clear mauve-ruffled flowers with dark lines in the throat. Large, fine form and opens 7 to 8 blooms at a time.

Ethel Cave-Cole—Light pink with deeper pink throat. Large, wide open florets. Fine propagator.

Golden Dream—Deep yellow. With receding florets. Distinctive.

Leading Lady—Cream white. Very large florets on tall spikes. Slightly ruffled.

King Lear—Clear deep reddish purple with silver line on edge of petals. Extremely large, heavily ruffled. Early.

Margaret Beaton—Huge snowy white florets with a very small vermilion-pink blotch deep in throat.

Margaret Fulton—A beautiful large flower of salmon pink. Blooms early.

New Europe—Vivid garnet red with small purple stripe in throat. Enormous florets, 10 open at one time.

Oregon Gold—A huge plant the size of Picardy. Flowers are a medium yellow with deeper throat.

Phyllis McQuiston—Large deep glowing shrimp pink shading a little lighter in throat; 5 or more open on long spike.

Picardy—Soft shrimp pink without flecking. Blotch of flesh pink shading to shrimp pink at edges. Very large.

Snow Princess—New fine white of good size and form. Many open blooms, perfectly placed. Stems never crook.

Stoplight—New brilliant red, lightly ruffled blooms, flat and wide open. Consistent performer and heat resistant.

Vagabond Prince—An unusual iridescent garnet brown color, lighter in upper throat and with small blotch of glowing flame scarlet on lip petal.

White Gold—Cream blending into gold throat. Very large. Extraordinary beauty.

LILIES

Few flowers provide such regal beauty as lilies, and few are as hardy. Let us suggest the varieties that will thrive best in your garden.

Cannas

King Humbert—(Orchard-flowering). Orange-scarlet with bright red markings; deep bronze foliage. 4 feet.

Yellow King Humbert—Beautiful yellow with red spots. 4 feet.

President—Immense bright red in large clusters. Green foliage. 4 feet.

Hungaria—Large dainty rose-pink, frequently edged cream. 4 feet.

Wintzer's Colossal—Largest flowering. Vivid, blazing scarlet. Green foliage.

Caladium

Fancy-Leaved—Rich ornamental leaves marked, veined and striped with white, pink and dark red.

Elephant's Ear—One of the largest ornamental plants for beds and borders. Huge green leaves give unusual effect.

Tuberoses

One of the most fragrant of all flowers. Tall spikes of white blooms.

Dahlias

(I.D. Informal Decorative. F.D. Formal Decorative)

Avalon—(F.D.) A fine garden variety. Profuse bloomer with rich large lemon-yellow blooms.

California Idol—(I.D.) A fine yellow with deep flowers. Heavy blooming with strong bush.

Dixie's Wine Dot—(I.D.) A beautiful variegated flower. White, speckled and splashed with wine red. Showy.

Jane Cowl—(I.D.) Lovely buff and old gold shading to a salmon center. One of the best for garden or cutting.

Jersey's Beauty—(F.D.) Glorious clear pink. One of the finest ever produced. Marvelous for bouquets.

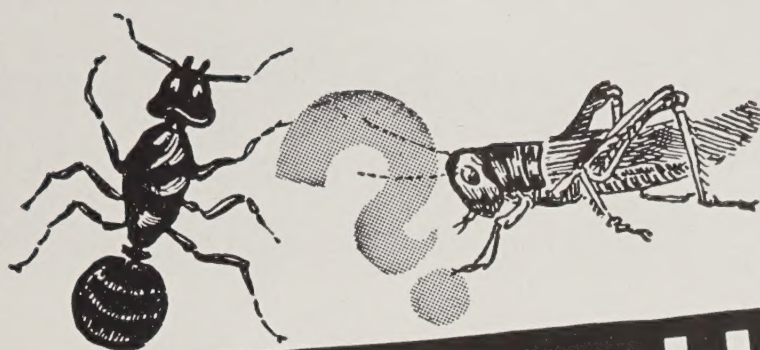
Mrs. I. de Ver Warner—(F.D.) A beautiful orchid pink. Lovely large flowers on long strong stems.

Thomas A. Edison—(F.D.) A fine large flower of a rich, royal purple. Outstanding.

White Wonder—(I.D.) Very sturdy. Has big shaggy blooms of sparkling whiteness.

Minature Dahlias—Lovely 3- to 4-in. blossoms just like the large ones in form and shape. All have good stems. A wide range of colors. Try them!

Pompon Dahlias—Charming "button" dahlias that require little care. Gorgeous cut flowers.



got an insect problem

get **COLORADO .44**

CHLORDANE INSECTICIDES

FOR THE GARDEN

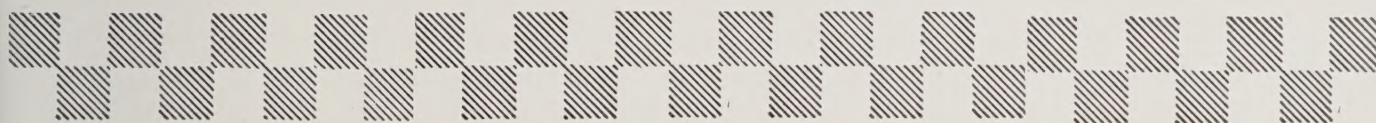
Colorado .44 wipes out grasshoppers, chinch bugs, thrips and many other crop pests.

FOR THE HOME

Colorado .44 kills ants, moths, silverfish, roaches, spiders, crickets, bedbugs, earwigs.

FOR LIVESTOCK

Colorado .44 destroys ticks, mites, lice, fleas, blue bugs, and many others.



EVERYTHING YOU NEED

for cows • for chickens • for pigs



It pays to make McMahon's your headquarters for all your **POULTRY AND LIVESTOCK NEEDS**. You will always find in our store a complete line of **PURINA CHOWS**, **PURINA SANITATION PRODUCTS**, and farms supplies . . . all under one convenient, friendly roof.

PURINA (Checkerboard) CHOWS are supplements and complete feeds for all livestock and poultry. They are scientifically mixed to promote livability, vitality, and rapid growth.

McMAHON COMPANY, Inc.

RAPID CITY
South Dakota

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Your 1950 Garden Annual



McMAHON FARM SEEDS



The proof of seed is in the crops they produce. Between good seed and ordinary seed there is the difference between fine crops and poor crops—in both yield and quality. That is why it pays to plant your fields with McMahon's Registered Brands Seeds—seeds that have been tried and selected for performance, that will satisfy the most discriminating grower. *Don't gamble with seed of unknown origin when the whole crop is at stake.* Registered Brands Seeds are sure seeds in two important ways:

1. *Our experience assures you the correct variety for this area.* For more than half a century we have been selling field seeds to the farmers of this region. We know from our long and close association with the farmers just what strains and varieties do best in this area. We know what to suggest for every type of soil, and our experience is always available to our customers.
2. *Our cleaning plant assures you only clean seeds.* By use of the latest seed cleaning equipment, we remove chaff, broken seed, dirt, and weed seeds that may be present. We use every device available to see that you get *all* seed when you buy Registered Brands Seeds.

OUR SEED CLEANING SERVICE is also available to our customers who want to sell clean seeds from their own fields. You'll be surprised at the small cost for which you can improve the grade of your seed by having our cleaning plant remove inert material and weed seeds.

McMAHON COMPANY, Inc.

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